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EDUCATIONAL AND VOCATIONAL GUIDANCE

A CONSIDERATION OF GUIDANCE AS IT RELATES TO ALL OF THE ESSENTIAL ACTIVITIES OF LIFE

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BY

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DIRECTOR OF TEACHER TRAINING

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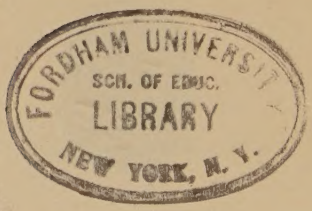

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TO MY WIFE

AGNES ADAMS PROCTOR

EDITOR'S INTRODUCTION

In its beginnings, about two decades ago, the guidance movement was concerned only with vocational guidance. The many misfits in life and in industry, and the many blind-alley occupations which school pupils entered, had alike attracted the attention of thoughtful men and women interested in child welfare, and the movement began in an attempt to offer vocational guidance. From a few beginnings here and there the movement has spread over the Nation, and to-day many small school systems are giving some attention to the vocational advising of the young people in their schools, while most of our larger school systems have made special provision for the work.

As the movement has developed, though, we have come to a clear consciousness that the proper guidance of young people is a far larger undertaking than merely directing them into suitable occupations at the close of their school career; instead, it involves their proper educational guidance for a long period preceding their entry into a vocation. The proper vocational direction of a pupil toward the end of his school period, we now know, should have involved the earlier study of individual capacity and personal factors, the exploration of special interests and abilities, the organization of a long-continued guidance program in studies, health-building, direction of social and character-building activities, sound civic training, and the imparting of vocational information, as well as guidance in making vocational choices. Beginning with an attempt to direct pupils into the kinds of vocations in which they are likely to succeed, the guidance function has been so expanded, as we

have come to understand it better, that to-day it comprehends educational guidance, health guidance, moral guidance, and social and civic guidance, as well as vocational guidance toward the close of the pupil's school career, proper placement when the training has been completed, and some follow-up oversight to see that the youth gets properly established in the work of life.

As the new work has developed, the educational guidance aspect has been seen to be of far more importance than that of vocational placement, and the problem now has become one of how we can render such an important service to our youth. To attempt to render such service from a central bureau and with a special staff has been found to be both ineffective and exceedingly costly. At first this seemed the proper way, but we now realize that the work must be decentralized and placed largely with teachers and principals to handle. This, though, is a task for which our teachers have had as yet little or no training.

It is this much larger conception of the problem of guidance which the author of this volume has seen so well and has set forth so clearly. Recognizing that the work must be done largely by and through the teachers in our schools, he has tried to set forth the different elements in the problem and show how each must be handled, and to do this in such a manner that teachers in service may read and understand. He has in consequence made a real contribution to our literature of the guidance movement. The book does not attempt to give central-station methods, report and record forms, or administrative devices; these are for the central office to devise and use as it wishes. Instead, the book tries to tell the nature of the guidance problem as it has now developed, and to set forth the ways in which teachers and principals can assist the central office in preparing for its most effective final service.

As a text in the principles of educational and vocational guidance in colleges and universities, and for city study and extension classes under the direction of the school authorities, the book ought to find a large field of usefulness for itself. It cannot but be helpful, too, to the teacher anywhere interested in handling the problem of the guidance of youth.

ELLWOOD P. CUBBERLEY

PREFACE

Vocational guidance has heretofore been the phase of guidance to receive the major attention. It has been the purpose of the writer of this book, instead, to present the subject of guidance from the viewpoint of the entire field of education. Vocational adjustment, although a very important personal and social need, is only one of the many adjustments which the child or the youth must make during the process of preparation for the duties and responsibilities of life. When guidance is viewed from the angle of vocational adjustment alone, it tends to become one-sided, to lack perspective, and to neglect other aspects of education which are fully as important. It is on this account that the writer has undertaken to treat the subject of guidance comprehensively, and to bring it more nearly into accord with the present trends of thought relating to the reorganization of elementary and secondary education.

The materials and methods of treatment employed are the outgrowth of the writer's experience with several different aspects of the guidance movement. He gave mental tests to a large group of high-school pupils, and followed their educational and vocational progress for a period of seven years. He acted as counselor, for three years, to a large group of World War Veterans, in training at Stanford University, under the auspices of the United States Veteran's Bureau. He has offered University courses in educational and vocational guidance to high-school teachers, principals, and school administrators since 1917. In 1922 he made an intensive study of the guidance movement in California, for the Committee of Fifteen of the High School Teachers Association.

City superintendents, elementary- and high-school principals, and classroom teachers will find help in this book in solving their everyday guidance problems. Those who are responsible for initiating and carrying out guidance programs in schools or school systems, either as directors of guidance and research or as counselors, will find the book both helpful and suggestive. It contains not only a statement of the general principles of each phase of guidance, but offers also definite suggestions as to methods of procedure in the organization and administration of a guidance program. There is also a certain amount of carefully selected descriptive material pertaining to guidance projects and plans now in operation.

The text will be found suitable for use in university classes in educational and vocational guidance, extension courses for the training of classroom teachers in the essential principles and practices of guidance, and for adoption by States and counties for reading-circle groups interested in the broader aspects of the guidance movement.

The writer is deeply indebted to the late Dr. Alexander Inglis, of Harvard University, for reading a portion of the manuscript, and for help in determining the viewpoint from which it should be written. Mr. Carl M. Cowdery, Department of Psychology, Stanford University, read the entire manuscript, and offered helpful and constructive suggestions. Dr. John M. Brewer, of Harvard University, made available the great collection of source material of the Harvard Bureau of Vocational Guidance. Dr. E. P. Cubberley has given constant criticism and encouragement, and has been an unfailing source of inspiration. To these especially, and also to all who have permitted the use of copyrighted material in this book, the author is profoundly grateful.

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EDUCATIONAL AND VOCATIONAL GUIDANCE

CHAPTER I

FUNCTION OF GUIDANCE IN PUBLIC EDUCATION

I. Organized Guidance Essential in a Democracy

Dependence of the child upon guidance. The very nature of the human child implies guidance. Left to itself, even after it is able to walk, it would perish. From the babe-in-arms stage into late adolescence it receives either parental or institutional care, and without such care, if it chanced to survive at all, its behavior would be more akin to that of the brutes than to that of human beings.

The progress of the human race to the present stage of development has been due primarily to the fact that during the long period of dependence of the human child it is being educated. A vegetable can be cultivated, a horse or a dog can be trained, but the children of men are capable of being educated. Education implies the ability on the part of the child to be educated, to think of himself in a different situation from that which he now occupies. It implies also the ability to initiate the processes necessary to bring about that changed situation. A small boy sees that his sister is able to read stories to herself from a book, and that she is, because of that accomplishment, independent of the grown-ups, so far as story-telling is concerned. He thinks of himself as able to do the same thing at some future time, and he is

capable of making a start toward the desired goal of ability to read the printed page. He could "pick-up" this reading ability, but he arrives at the desired goal much more quickly if he is guided in the first steps of the process by some one who already knows the way. Hence education has been defined as "the process of producing, directing, and preventing changes in human beings." [1] The changes to be produced, directed, and prevented will necessarily depend on the goal to be attained — on the purpose for which the individual is being educated.

Educational aims determined by the needs of the individual and the nature of the State. The aims of education are usually established in the light of the needs of the individual and of the social order of which he is a part. The Social Order is interested in the training of each of the persons making up its citizenry, to intelligent participation in those activities which concern the welfare of the entire group. In an autocratic State, whether a monarchy or a dictatorship of the proletariat, the individualistic phases of education will be subordinated to the political and group phases. This point of view is supported by the conditions which existed in Imperialistic Germany before the World War, and which exist in Soviet Russia to-day. Under any autocratic political régime the child will be trained primarily with a view to the welfare of the State. Both the educational aims and the means of attaining those aims will be set up by the State.

In a representative democracy such as our own, on the contrary, the individualistic aims of education will tend to be stressed. Only such attention to the political and social aims will be given as is deemed essential to social cohesion. The people of a democracy hold firmly to the belief that the

[1] Inglis, A. *The Principles of Secondary Education*, p. 3. Houghton Mifflin Company, Boston, 1918.

welfare of all is most apt to be promoted where each person has both the incentive and the opportunity to realize his maximum possibilities. It is on this account that the people of a democracy are willing to tax themselves heavily to support free public education. For the same reason a democratic social order permits freedom of thought and expression, within reasonable limits, upon political, social, and religious questions, and depends upon the operation of the law of enlightened self-interest to safeguard the general welfare.

Nature of guidance under differing social conditions. In an autocratic State, guidance takes the form of prescription and dictation. The leaders in such a State have very definite ends in view, the accomplishment of which might be unduly delayed or permanently defeated if freedom in matters of politics, religion, and education were allowed. It is to the interest of the ruling class to keep society strictly within the lines of traditional stratification. Education is therefore organized and administered to this end. Social and economic distinctions are perpetuated. There are separate educational ladders for the classes and the masses. Transfer from one type of school to the other is made very difficult. It is true that the methods employed may be highly scientific. Results may be apparent in a low percentage of illiteracy, in the most efficient training of all types of workers, and in a widespread enthusiasm among the people for the program of the leaders. The fact remains, however, that the people of an autocratic State are not their own masters; they are the pawns of the ruling class and belong, theoretically at least, to the State.

The freedom which prevails in the United States of America, on the other hand, gives wide scope to individual initiative and ability. A man may be a carpenter or a ditch digger, but that is no reason why his son must be satisfied to look forward to the same occupation or station in life. Sub-

ject to native capacity and economic limitations, the latter of which he is frequently able himself to control, the American youth is free to strive for a higher social status than that occupied by his father.

That the tendency is for boys and girls in this country to have ambitions which rank higher than the rank of the occupation in which their fathers are engaged, is shown in Table I.[1]

TABLE I. COMPARING VOCATIONAL AMBITION WITH FATHER'S OCCUPATION FOR 1126 HIGH SCHOOL STUDENTS, BOTH BEING RANKED ON A SCALE OF FIVE

RANK OF FATHER'S OCCUPATION	TOTAL NUMBER OF CASES	RANK OF CHILD'S AMBITION					TOTAL PER CENT
		I Per cent	II Per cent	III Per cent	IV Per cent	V Per cent	
I.....	91	**55.0**	31.0	14.0	0.0	0.0	100.0
II.....	456	29.0	**41.0**	30.0	0.0	0.0	100.0
III.....	390	18.0	44.0	**37.0**	1.0	0.0	100.0
IV.....	152	19.0	40.0	41.0	**0.0**	0.0	100.0
V.....	37	24.0	35.0	41.0	0.0	**0.0**	100.0
	1126						

In the above Table the highest rank is "I," and the lowest rank is "V." The figures in bold-faced type indicate the percentage of cases in each rank where the rank of the father's occupation and of the child's ambition are the same. In 91 cases the father's occupation ranked "I"; the child's ambition ranked the same in 55.0 per cent of the cases, one point below in 31 per cent of the cases, and two points below

[1] The data for Table I were compiled by the writer from studies of the vocational ambitions of high-school pupils in the Palo Alto, California, High School, and the Boise, Idaho, High School.

in 14.0 per cent of the cases. The father's occupation ranked "II" in 456 cases; the child's ambition ranked the same in 41.0 per cent of the cases, one point above in 29.0 per cent, and one point below in 30.0 per cent of the cases. The father's occupation ranked "III" in 390 cases; in 37.0 per cent of the cases there is agreement, in 1.0 per cent the child's ambition is one point lower, but in 44.0 per cent of the cases it is one point, and in 18 per cent two points higher than the father's occupational rank. Where the father's occupation ranks "IV" there are no cases in agreement, but 41.0 per cent of the children have ambitions ranking one point, 40.0 per cent two points, and 19.0 per cent three points higher. Also in case of the father's occupation ranking "V" there are no children's ambitions in agreement, none one point higher, but 41.0 per cent are two points, 35 per cent three points, and 24 per cent four points higher. American children thus appear to be ambitious to occupy stations in life higher than those occupied by their parents.[1] American parents encourage them in this attitude, and make great sacrifices to promote the realization of these lofty ambitions.

Complexity of civilization makes guidance necessary. The greater the range of selection in the matter of life careers, the more difficult becomes the task of making a wise selection and the greater the chance of error. When population is relatively homogeneous, when the pursuits of the people are largely agricultural, when industry is carried on in small units, and when schools are limited in their offerings — then the problems of guidance are relatively simple. When, on the contrary, industrial pursuits claim more workers than do agricultural, when the bulk of the popula-

[1] Sears, J. B. "Occupations of Fathers and Occupational Choices of 1039 Boys in Grades 7 and 8, of the Oakland Schools"; in *School and Society*, vol. 1, pp. 752–56.

tion becomes urban and composed of diverse racial elements, and when farming involves the use of complicated machinery and scientific methods — then the schools must offer many curricula where formerly they offered but one or two, and the problems of guidance become much more difficult and complicated.

The transformation suggested in the preceding paragraph has already taken place in this country.[1] In the year 1800 about ninety per cent of our people were engaged in the cultivation of the land and kindred pursuits, and there were only six cities having 8000 or more inhabitants. In 1920 only 26.3 per cent of the gainful workers were engaged in agricultural callings, only 48.8 per cent of the entire population lived in rural communities, and there were 940 cities which had 8000 or more inhabitants. The number engaged in trade and industrial occupations in 1800 was less than ten per cent, whereas, in 1920, sixty per cent of the gainful workers were so engaged. Thus has the center of our national life shifted from the country to the city and from the farm to the shop.

Reasons for the growth of the guidance movement. It is significant that the growth of the organized guidance movement has been coincident with the demand for an expansion of the educational system to meet the needs of an urban and industrial people, as contrasted with the needs of a rural and agricultural people. In the earlier agricultural stage, and the later transition stage of our national development, such guidance as was given was largely in the hands of parents, school teachers, and ministers. At present, the social and economic problems are so complex that few parents are competent to give the needed advice. The church no longer holds the place in the life of the community which it once

[1] Cubberley, E. P. *Public Education in the United States.* Houghton Mifflin Company, Boston, 1919. All of chap. xi, pp. 332–64.

held, and the influence of the minister as an adviser of youth has correspondingly diminished. The expansion of the program of studies, the departmentalization of teaching, and the bringing together of large bodies of pupils in elementary, junior, and senior high schools makes it difficult for regular classroom teachers to perform acceptably the guidance function. Teachers tend to become specialists in particular subjects, and because of this lack the breadth of knowledge of men and affairs which the successful counselor of youth must have. This situation has led to the present rapidly growing movement to provide a system of scientific guidance for the boys and girls in our schools.

The new demand for organized guidance. Wherever educational advancement makes possible the handling of pupils in larger and larger units, the necessity arises for the employment of persons trained in the science and art of adjusting educational methods and subject-matter to the native capacities of children, and also to their civic, moral, physical, vocational, and avocational needs. On the other hand, where educational opportunities are scant organized guidance is wanting. If all the elementary grades are taught by one teacher, or if all the high-school subjects in a given high school are taught by two or three teachers,[1] there is little or no room for choice of subjects on the part of the pupils and the teachers have very little time to devote to problems of guidance. Where, however, several small districts have been consolidated for school purposes, or, where, in the larger towns and cities, the grouping of pupils is made by grades and an enriched program of studies is offered, guidance may well be undertaken.

The progress of the movement for the consolidation of school districts in rural communities, and the rapid growth

[1] National Education Association, *Research Bulletin*, vol. 1, no. 1 (1923) pp. 40–43.

of urban centers due to the shift from agricultural to industrial pursuits, means the constant enrichment of educational offerings both as to number and quality, and carries with it the implication of better guidance facilities than we now have. As a matter of fact, the increase in the number of free choices in the program of studies has become so great that, unless accompanied by a well organized scheme of guidance, confusion and waste may easily result.

II. Guidance a Means of Conserving Human Values

Conservation methods in industry and education compared. The application of engineering skill to the conservation of what would otherwise become waste products of industry is a notable feature of present-day American life. Every large industrial plant has its research laboratory and its staff of specialists. Laboratory tests of raw materials and processes employed are constantly being made with a view to discovering more economical processes and securing greater efficiency in production. The elimination of waste or the discovery of a more economical process often amounts to the difference between dividends and deficits, between success and failure in a given venture.

The school is one of the great business enterprises in America which has been very slow to apply research methods to its many and difficult problems. This enterprise has over 1,000,000 employees; an invested capital in buildings, grounds, and equipment of $2,500,000,000; annual running expenses of $1,036,000,000, and representing a business capitalization of about $25,000,000,000. Its raw material consists of 21,000,000 boys and girls between the ages of five and eighteen years of age. It seeks to turn out, as finished product, citizens trained to take an intelligent part in a self-governing society, able to carry their proper share of the common economic load, and capable of employing their

leisure time in activities socially and individually rewarding. The haphazard method of conducting this great business means of course tremendous waste in money and materials, but the greatest waste entailed is in human values. Such losses cannot be measured in dollars and cents, because they are more or less intangible. These losses are none the less real, however, and ultimately appear in a citizenship lacking in the social, economic, and spiritual qualities which make for permanence in a democracy. The development of a scientific guidance program is one of the means for conserving the values now lost.

Similarity and difference between human and industrial conservation. There are certain fundamental ways in which the tasks of the technical engineer and the human or social engineer are alike. Both should make a scientific study of the raw material to be handled. Both must be familiar with the ends to be achieved — that is, the character and purpose of the final product. Both need to make a thorough study of present processes with a view to improving the technique of workers and securing the maximum of service from equipment. Both must also seek to reduce waste and effectively utilize all available means for efficient production, with a view to improving both the quality and the quantity of the output.

The differences between the task of the technical engineer and that of the social engineer arise from the inherent differences in the nature of the raw materials handled by each, as well as the nature of the product. Industry starts with standardized raw materials and seeks to produce a standardized product at the lowest possible cost. The technical engineer, by physical and chemical tests, can determine the exact nature of the materials with which he must deal. He knows that reactions secured under a given set of conditions will always be secured, provided the conditions surrounding

the experiment are exactly the same each time it is repeated. Exact prediction is possible, and detailed methods of procedure, easily carried out by trained workers, can be set up.

The social engineer, on the other hand, is dealing with material which does not always react in the same way to the same set of conditions. Boys and girls, while easily influenced and capable of having their abilities "educated" or "drawn out," are in a very real sense also self-determining. They deliberately pick out the portions of a given situation to which they will react. Hence exact prediction as to what they will or will not do in a given case becomes impossible. Again, the social engineer in public education cannot select his raw material. He must take "mine-run" — that is, "all the children of all the people" — and do the best he can to turn out as high a grade of citizenship as the raw material, equipment, and resources at his disposal make possible. While the difficulties, just mentioned, beset the path of the social engineer in public education, there is still every reason why he should strive to apply to his problems the same spirit of research and open-mindedness toward new methods as the technical engineer brings to the handling of his task. Finally, if public education is to have trained social engineers, comparable in their field with the technical engineers employed by industry, provision must be made for their adequate training. The conservation of waste materials in industry not only pays for the cost of the engineering skill involved, but frequently yields large dividends for the stockholders as well. Conservation of waste materials in public education might conceivably increase the actual per-pupil cost of education, but the great saving in human values, represented by the improved social and economic efficiency, would far outweigh the initial cost and yield material as well as spiritual dividends to the State.

Rise of guidance to a recognized place in education. Guidance, as an important phase of human engineering, has in recent years been recognized as deserving special consideration in the fields of educational and industrial research. At a recent meeting of the Division of Anthropology and Psychology of the National Research Council, the following resolutions relating to educational and vocational guidance, among others, were passed: [1]

Moved, that we recognize the need for the organization and coördination of personnel work in schools and colleges. *Adopted.*

Whereas, the demand for vocational guidance may lead to procedures devised on the basis of inadequate knowledge,

It is moved that the conference declare the active promotion of scientific research in this field an urgent need. *Adopted.*

These resolutions are significant as indicating not only a recognition of the need for guidance, but as emphasizing its scientific aspects. The guidance movement may be said to have emerged, therefore, from the initial stage of guesswork, vague impression, and cock-sure fortune-telling, and to have won a place among the recognized fields of scientific research.[2]

III. The Function of Guidance in the Public School System

Guidance the background for a truer perspective of the educational process. There is need that every one connected with the public school system should perceive of education as a complete process. They should all come to think in terms of the preparation of youth for its place in a democratic social order, and not in terms of subjects *per se*.

[1] Conference on Vocational Guidance, auspices of National Research Council, Washington, D.C., January, 1923. *News-Bulletin*, Bureau of Vocational Information, New York, vol. 1, no. 11 (March 1, 1923).

[2] Brewer, John M. "Is Scientific Guidance Possible?" in *School and Society*, vol. 17, pp. 262–66.

There is need that schools and educational processes should be thought of as designed for the benefit of children, and not of children as points on a curve of distribution. Old and new features of the educational process should be examined in the light of their possible contribution to the training of boys and girls in the essential life activities.

If this examination leads us to the conclusion that our present teaching and administrative methods fail to meet the life needs of from forty to sixty per cent of the children enrolled, it should be the occasion for an immediate "about-face" in our thinking and practice in educational matters. When confronted with the real situation we have no right to say: "I'm sorry that these children do not seem to have the capacity to do the grade of work which we require, but it is the fact and there is nothing that we can do about it. They will have to make room for those who do have the ability to meet our high standards." This philosophy may be justifiable from the standpoint of the high-tuition private school, but not from the standpoint of a school system supported by general taxation. It is our business, as those interested in public education, to seek to adjust our program of study and our methods of teaching to the peculiar needs of all the children who enter our schools. We have no right to be satisfied until every one of these children has had a chance to become intelligent to the full extent of his native endowment. This cannot possibly come about until the guidance function has been given its proper place in the public school system.

A broader view of the true function of guidance necessary. Guidance will not be accorded the place which rightfully belongs to it by reason of its importance until it is understood to have a wider application than simply to the choice of a vocation. Up to the present time, however, most of the attention which guidance has received has been from the

vocational guidance angle. It is the purpose of this book to present a view of guidance as having to do with the whole field of education, and as being on that account concerned with every one of the major activities of life. The discussions of guidance embodied in the following chapters are designed to develop such a viewpoint more fully than it has as yet been presented in the literature of the subject.

Dr. Brewer evidently had this broader view in mind when he wrote:[1]

> A full realization of guidance in education, or of education as guidance, will vitalize the work of the school and help to establish professional standards in teaching. Then *skills* in living will be developed through the activities of a community or organization of children under the guidance of the teachers. The reasons, science or *technical knowledge* back of these skills will be taught as the subject matter of instruction, and *social understanding* will be learned in the plenum of actual present citizenship.

Analysis of guidance aims and functions in public education. The following[2] are the main divisions, together with appropriate subdivisions, under which the principles, aims and current practices in the field of educational and vocational guidance will be discussed:

I. Exploration of abilities — that is, discovery of interests, aptitudes, and capacities of school children.[3]
Involving:
1. Knowledge of and ability to employ and interpret the results of mental, physical, moral, educational, and vocational tests.
2. Knowledge of and ability to employ methods of supplementing objective tests and scales by means of interviews, questionnaires, rating scales, and the appropriate

[1] Brewer, John M. "Education as Guidance"; in *School and Society*, vol. 16, p. 714. Quoted with the permission of the publishers.

[2] *Vocational Guidance Bulletin*, Pittsburgh Public Schools. Published by Board of Education, 1922, pp. 34–57.

[3] Exploration function of guidance discussed in chapters II, III and IV.

personnel records necessary to secure an accurate case-history of every child in the school system.

II. Adjustment of school tasks to the needs and abilities of children.[1]
Involving:

1. Knowledge of the principles of curriculum making, and the construction of courses of study to provide for the educational needs of various pupil-groups.
2. Knowledge of the principles of ability-grouping in order to secure homogeneous instruction groups.
3. Knowledge of a wide range of educational opportunities, and provision for giving pupils assistance in choosing their subjects, curricula, or schools in the light of their life purposes.

III. Cultural guidance, or the direction of school activities and courses with a view to promoting symmetrical growth and development.[2]
Involving:

1. The cultivation of social-civic habits, attitudes, and skills.
2. Adequate physical development and correct health habits.
3. Stimulation of æsthetic and recreational interests and pursuits.
4. Utilization of all available agencies for character building.

IV. Vocational guidance, or the giving of counsel and advice relative to the selection of, training for, and entering upon a life-career.[3]
Involving:

1. Collecting and imparting vocational information.
2. Help given in the selection of vocational objectives, and in securing necessary training through a proper sequence of subjects, curricula, and schools.
3. Assistance rendered in the securing of suitable employments when training is completed.
4. Adequate following-up of individuals trained and placed,

[1] Curriculum and school subject guidance covered in chapters v, vi, and vii.

[2] Cultural guidance, including social, civic, health, æsthetic and moral guidance treated in chapters viii, ix, x, and xi.

[3] Vocational guidance and its relation to training and placement in occupations discussed in chapters xii, xiii, and xiv.

with a view to rendering assistance in making necessary adjustments or securing other employment.

V. Organization of the agencies necessary to carry out an adequate guidance program.[1]

Involving:

1. Securing the interest and coöperation of the classroom teachers in the principles and technique of guidance.
2. Providing for the appointment and training of full-time or part-time counselors, to be responsible for the carrying out of guidance objectives in their respective buildings.
3. The development, where feasible, of a department of Research and Guidance, to "head up" the guidance activities of the school system and secure the coöperation of other administrative agencies.

Method of treatment of materials. In developing the main divisions and subdivisions of the field of guidance, as above indicated, the method of treatment will be as follows:

(*a*) *Discussion of general principles.* Since the guidance movement is yet in its formative stage, there is necessity for full discussion of the general principles involved. This is particularly true where, as in the present instance, one is endeavoring to stress a broader conception of guidance than that which ordinarily prevails.

(*b*) *Description of current practice.* The general principles of guidance will be illustrated with examples of current practice. So far as known there is no system where an ideal program of guidance, in all its phases, is being carried out. There are, however, individual schools or city school systems where some feature of an ideal guidance program is being tried. Attention will be called to these experiments, sometimes in detail, but more frequently through a footnote or reference.

(*c*) *Selected readings.* In connection with each chapter

[1] For organization and administration of a guidance program and training of counselors, see chapter XV.

there will be given a list of selected readings. These readings will provide the means for further study of the principles discussed or of the experiments described. The starred references are those thought to be the most vital for a complete understanding of the topics discussed.

(*d*) *Problems for further study.* Since one of the most successful methods of teaching any subject is to enlist the student's interest in specific problems related to that subject, problems connected with each phase of guidance herein considered have been appended to the appropriate chapters.

Ultimate purpose of book. The ultimate aim of the writer has been to develop the conception of guidance in public education as the mediating or coördinating agency. When school administrators exhibit a tendency, as they frequently do, to exalt logic above life — to insist upon conformity with established customs and programs at the expense of individuality — guidance, personified in teacher or counselor, should act as the "go-between," the "co-ordinator," the one who knows the child, understands his needs, and thinks of him as a real person. Properly administered, guidance will not only protect the child from becoming a "depersonalized" unit in a highly organized system, but will help him to find himself and to become a real factor in shaping his own destiny.

Herbert Hoover, himself a great social engineer as well as a renowned technical engineer, sets forth the real function of guidance in public education in these words:[1]

> As a race we produce a considerable percentage of persons in each generation who have the intellectual and moral qualities for the moral and intellectual inspiration of others — for the organization and administration of our gigantic economic and intellectual machinery and for invention and creation. I believe that we lose a large portion of those who would join these ranks because we fail to

[1] Hoover, Herbert E. National Education Association, *Research Bulletin*, vol. 1, no. 1 (January, 1923), p. 12.

find them, to train them rightly, to create character in them, and to inspire them to effort. Our teachers are necessarily the army of inspectors in our nation who must find these individuals and who must stimulate them forward.

In these striking words Mr. Hoover has given us a clear-cut statement of the guidance function in public education — that is "to find" and "train" potential ability in children, "to create character" in those whose abilities have been thus discovered and trained, and finally, "to inspire them to effort." The first objective — the discovery and training of capacities in such a way as to add to the sum total of cultural, economic, and social values — involves educational and vocational guidance. The second objective — to create character and inspire to effort — involves social, æsthetic, and moral guidance.

Guidance, then, properly conceived and administered, should mediate between the child and the world of opportunity around him. It should take him by the hand and lead him along those paths of self-realization and social service to which he is best adapted by reason of his mental, moral, social, and physical endowment. In the performance of this task the guidance movement in the public schools must take advantage of the proved results of scientific research, of the best of material equipment, and of the most highly trained workers that an awakened and generous public can be persuaded to provide.

QUESTIONS AND PROBLEMS

1. What is the relation, if any, between a highly organized nervous system and a long period of infancy in the case of animals? Does this have any bearing upon capacity to profit by instruction?
2. In Table I, page 4, there are only thirty-seven pupils coming from homes where the father's occupation ranks V (unskilled labor), and only one hundred and fifty-two pupils coming from homes where the father's occupation ranks IV (semi-skilled labor). How do you explain this situation? Is the high school really the people's college?
3. Would the German system of education, as it was prior to 1914, meet the needs of a truly republican Germany? Why?

4. Compare the program of study of a 600-pupil high school, having 30 teachers, with that of a high school having 60 pupils and 3 teachers. In which situation is guidance apt to be the more essential?
5. Investigate the research activities of some great industrial plant: (*a*) as to cost relative to unit of production; (*b*) as to economies effected; (*c*) as to improved quality of product.
6. Make an "age-grade" distribution of the children in any small school, or take one already made (see Inglis, *Principles of Secondary Education*, p. 5), and analyze the data for evidence of waste of public funds and human values.
7. How is the social engineer handicapped in his efforts to study and evaluate the raw material with which he has to deal — that is, children of all ages, coming from all types of homes?
8. Is there any tangible evidence that the social sciences are tending to adopt laboratory methods of study in dealing with their problems? Cite examples.
9. What are some of the changes in rural life which make it impossible for us to-day to speak of "rural simplicity"?
10. How does the guidance function operate to compel the educator to take account of the entire field of education — cultural, vocational, social, and moral?

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CHAPTER II

DISCOVERY OF LEARNING CAPACITY BY THE USE OF MENTAL TESTS

I. The Existence of Individual Differences

Different rates of progress through the schools. When we find a ten-year-old child sitting next to a nineteen-year-old youth in the eighth-grade classroom, it suggests that these two individuals have been going through the grades of the school system at distinctly different rates of speed. One of them, the ten-year-old, has been in school less than five years and is completing the eighth elementary grade; the other has been taking twelve or thirteen years to accomplish the same journey. A recent age-grade distribution of some sixty-eight hundred children in the elementary grades of the Pasadena, California, schools,[1] brought out the fact that only 364, or 5.3 per cent, were accelerated to the extent of one or two years, and none of them were more than two years accelerated. Thirteen hundred and fifty-nine, or 20.0 per cent, were retarded one or two years, and 247, or 3.6 per cent, were retarded from three to eight years. There were exactly as many — that is, eight children — who were retarded seven years as there were who were accelerated two years.

A similar study showed that in the Paterson, New Jersey, schools [2] children ranging all the way from seven years of

[1] Hughes, W. Hardin, *Educational Research Bulletin*, Pasadena Public Schools, vol. 2, nos. 1–2, pp. 5. (September–October, 1923.)

[2] Inglis, A. *Principles of Secondary Education*, Table I, pp. 5. Houghton Mifflin Company, Boston, 1917.

age to sixteen years of age were found in the fifth elementary grade, while thirteen-year-old children were found in every grade, from the first to the eleventh, inclusive. Many similar studies have been made in other cities, commonly with similar results.

Reasons for these differences. Differences in the rates of pupil progress through the schools may be traced to a number of causes. Late entrance, after which regular progress is made, may appear in an age-grade distribution as retardation. The moving about of parents, loss of time through illness, loss of interest in school tasks through lack of proper motivation — all these play a part in bringing about slow progress in school work. The most potent causes, however, are those connected with improper classification and the lack of learning capacity on the part of the pupils themselves.

Improper classification is indicated by the extent to which retardation is in excess of acceleration. In the Pasadena elementary grades, only 5.3 per cent were found accelerated, while 23.6 per cent of the pupils were retarded. If we take all of the elementary school children of California, we find only 4 per cent accelerated, while 33 per cent are retarded from one to eight years. The phrase "They shall not pass!" was the rallying battle-cry at Verdun which saved France from disaster. The same phrase, applied to American school children, has overcrowded our grades with retarded bright children as well as with over-age dull children. Better classification, however, cannot be brought about until we are in possession of greatly improved methods for discovering the true native capacity of children to learn. It is apparent that the administrative devices most commonly in use — ordinary examinations and teachers' marks — have failed. New devices are being tried out, one of which, mental testing, will be discussed in this chapter.

II. Mental Tests as a Means for Discovering Learning Capacity

The measurability of intelligence. The most significant contribution of psychology to educational progress in recent years has been the development of objective means for measuring intelligence. Dr. E. L. Thorndike, who has been one of the most influential advocates of this theory, believes that general intelligence consists of a group of innate capacities, closely related, by virtue of which the individual is capable of learning, in a greater or less degree, in terms of the amount of these abilities which he possesses. He has devoted his time and energy for the past fifteen years to the demonstration of the proposition that these innate abilities can be objectively measured. Working along similar lines, and associated with Dr. Thorndike in a number of important enterprises, such as the development of the Army Scale and the National Intelligence Tests, have been such nationally known psychologists and statisticians as Bingham, Buckingham, Dearborn, Haggerty, T. L. Kelley, McCall, W. S. Monroe, Otis, Rugg, Scott, Terman, Trabue, Whipple, Yerkes, and others. By now not only have individual and group tests been evolved, but substantial progress has been made in the standardization of both forms of mental tests. As a result, school authorities have to-day a wide range of choice when considering the tests to be employed in making mental-ability surveys of their pupils.[1]

What it is that mental tests measure. While, as above stated, numerous mental tests have been devised and standardized within recent years, there is not as yet entire agree-

[1] Whipple, G. M. "Annotated List of Group Intelligence Tests"; in *Twenty-First Yearbook*, National Society for the Study of Education, 1920, part 1, chap. IV, pp. 93–113. Public School Publishing Company, Bloomington, Illinois.

ment, among either psychologists or laymen, as to just what it is that the tests actually measure. Some hold that the tests measure innate intelligence; others that they measure merely what the person tested has already learned and are in consequence not a reliable measure of innate ability; still others that they have no validity at all. A median position, which appeals to the ordinary person as reasonable, is taken by Dr. Stephen S. Colvin.[1] We quote:

> General intelligence is an inborn capacity. It does not manifest itself, however, except through learning. If an individual were born with a very high capacity to become intelligent, but had no opportunity to learn, he would possess no intelligence. *Intelligence must be acquired. Only the capacity is inborn.* . . . It is quite evident that a feeble-minded child can never become highly intelligent, never mind how favorable his environment, how skilled and patient his teachers. His innate endowment will not permit him to go beyond a certain level of attainment. . . . On the other hand, the greatest potential intelligence will never become highly intelligent in an environment that affords scant opportunity to learn. . . . Nature is more important than nurture in explaining individual differences in acquired intelligence, when the nurture has been similar for the group concerned. On the other hand, it would be equally true that nurture would be more important than nature in explaining individual differences if the native equipment of a group were substantially the same and the environment markedly different.
>
> The foregoing consideration explains the feasibility of devising tests to measure general intelligence. At first thought it may seem impossible to determine the amount and nature of an innate capacity or group of capacities that manifest themselves only through learning. These capacities can be measured only indirectly through what has been acquired, never in their native purity. . . We never measure inborn intelligence; we always measure acquired intelligence; but we infer, from differences in acquired intelligence, differences in native endowment. (When the individuals com-

[1] Colvin, Stephen S. "Principles Underlying the Construction and Use of Intelligence Tests"; in *Twenty-First Yearbook*, National Society for the Study of Education, 1920, part 1, chap. III, pp. 18–19. Quoted with the permission of the publishers.

pared belong to a group who have had common experiences in relation to the materials employed in the tests or standards of measurement.) [1]

The important point to note in connection with Dr. Colvin's statement is that mental tests measure, not simon-pure native endowment, but the results of the application of that endowment by the individual to his environment. Also that such measurements furnish a valid basis for inference, provided only that all of the persons tested have been exposed to substantially the same environmental conditions; or, to put it in another way, that the tests are "composed of elements appealing to the common interest and within the common experiences of the group tested."

Conditions which intelligence tests must meet to be valid. In line with what has been said in the preceding section the person who employs mental tests in school administration should observe certain cautions. There are certain fundamental conditions which must be met before the results of either group or individual mental tests can be considered to have even approximate validity. These conditions, as stated by Pyle,[2] are as follows:

1. The same task must be set for all the learners to be tested.
2. The interest of the learners in the tasks assigned must be approximately equal.
3. The physical and mental condition of the learners must be good. They must all be free from illness, fatigue, etc., and must have a favorable emotional attitude toward the test situation.
4. The learners must put forth equal energy in their efforts to accomplish the tasks set up in the test.
5. The learners must all have had reasonable opportunities to learn about the various elements involved in the test.

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[1] Words in parenthesis paraphrased; not directly quoted.

[2] Pyle, W. H. *The Psychology of Learning.* An adaptation from page 176, chap. IV.

In giving a test of mental ability to a certain individual or group of individuals it is not possible always to be sure that all of the above conditions have been met. The tester, however, should make every effort to see that all the conditions are as favorable as possible. He should review the results of the test in the light of the possible adverse influence exerted by unfavorable conditions surrounding the giving of the test in the case of each individual tested. In other words, the person tested should always be given the benefit of the doubt until test results have been checked against other valid criteria. The mental-test movement has suffered more adverse criticism through the premature announcement of unverified results than from any other single cause.

Different types of mental tests employed. Three main types of mental tests have been used.

(*a*) *Laboratory tests of mental traits.* Elaborate and ingenious devices are required to secure even the approximate isolation and measurement of single mental traits. However, the sensory and motor phases of mental reaction, such as visual and auditory acuity, perception of pitch, perception of time and of space, perception of weight, and memory span for different varieties of material, are most successfully measured under laboratory conditions. In fact, the systematic inventory of mental traits by means of laboratory tests was the preliminary phase of the psychological movement for the measurement of general intelligence. The work of Galton and Cattell in the measurement of single mental traits, by means of laboratory tests, paved the way for Binet, Thorndike, Terman, and other later workers. The psychologists just named, and their associates, have developed the methods of measuring mental traits in the combinations required for the accomplishment of ordinary school tasks, and under classroom conditions as contrasted with artificial laboratory conditions. Until this latter movement

had gained considerable headway it was not possible to put into the hands of teachers and school administrators a working tool for the objective measurement of mental ability.

No responsible person connected with the mental-test movement would claim that ultimate standards in the measurement of general mental ability have as yet been attained, but it can truthfully be said that fairly reliable measures of something closely related to ability to accomplish the type of task now ordinarily assigned to pupils in the schools have been devised, and that these measures have been applied to many thousands of children and the results checked up against other valid criteria. There follows a brief description of the two types of measures of general intelligence most frequently used in American school systems.

(*b*) *Individual tests of general mental ability.* The first practical test of general mental ability was worked out by Binet, the French psychologist, who was assisted in his work by Dr. Simon, a French physician. Dr. L. M. Terman, who made the Binet-Simon Scale available for use in English speaking countries by his *Stanford Revision*, says: [1]

> The Binet Scale is made up of an extended series of tests in the nature of "stunts" or problems, success in which demands the exercise of intelligence. . . . Binet fully appreciated the fact that intelligence is not homogeneous, — that it has many aspects — and that no one kind of test will display it adequately. He therefore assembled for his intelligence scale tests of many different types, some of them designed to display differences of memory, others differences in power to reason, ability to compare, power of comprehension, time orientation, facility in the use of number concepts, power to combine ideas into a meaningful whole, the maturity of appreciation, wealth of ideas, knowledge of common objects, etc.
>
> The tests were arranged in order of difficulty, as found by trying them upon some two hundred normal children of different ages

[1] Terman, L. M. *The Measurement of Intelligence*, chap. III, pp. 36–37. Houghton Mifflin Company, Boston, 1916. Quoted with the permission of the publishers.

from three to fifteen years. It was found, for illustration, that a certain test was passed by only a very small proportion of the younger children, say the five-year-olds, and that the number passing this test increased rapidly in the succeeding years until by the age of seven or eight years, let us say, practically all of the children were successful. If, in our supposed case, the test was passed by about two thirds to three fourths of the normal children aged seven years, it was considered by Binet a test of seven-year intelligence. In like manner, a test passed by sixty-five to seventy-five per cent of the normal nine-year-olds was considered a test of nine-year intelligence, and so on. By trying out many tests in this way, it was possible to secure five tests to represent each age from three to ten years (excepting age four, which has only four tests), five for age twelve, five for fifteen, and five for adults, making fifty-four tests in all.

Revision of the Binet Scale was undertaken by Goddard in 1911. Later revisions have been accomplished by Terman, Yerkes, Bridges, Kuhlmann, and Herring. The *Stanford Revision*, by Dr. Terman, which has become the most widely used of all the revisions of the Binet Scale, came out in 1916. In the process of developing the Stanford Revision, Dr. Terman and his co-workers spent several years of time and examined several thousand subjects. The number of tests per mental-age-year was increased from five to six for ages three to ten years. Eight tests were provided for year twelve, and six each for ages fourteen, sixteen, and eighteen years. Sixteen alternate tests bring the total number up to ninety, as against the fifty-four of the 1911 Binet Scale.

The *Stanford Revision* of the Binet Scale,[1] requires anywhere from forty minutes to an hour and thirty minutes to give. The time required depends to a certain extent upon the brightness or dullness of the person being tested. Examiners should be carefully trained, and should have given

[1] Record booklets and test materials for the giving of the Stanford Revision of the Binet Scale may be secured from Houghton Mifflin Company, Boston.

at least twenty-five individual examinations under expert supervision before attempting to give examinations unassisted. In addition to adequate training, those who give the Binet examinations should possess personal qualities which enable them to come quickly into rapport with the persons tested. The factors of emotional attitude and interest in the materials of the test are so important that an examiner with a negative or otherwise untoward disposition cannot secure dependable results. The *Stanford Revision* was adopted by the Division of Psychology of the United States Army during the World War as the standard test in giving individual mental examinations. It is in use for the same purpose by school authorities quite generally throughout the country at the present time, and has been found to be a very reliable means for discovering the general mental level of persons from three years of age to the superior adult stage of mental development.

(*c*) *Group tests of general mental ability.* The successful application of individual mental tests, such as the Stanford and other revisions of the Binet Scale, between the years 1911 and 1917, created a demand for means of testing large groups of persons at the same time. So long as mental tests could be given to but one individual at a time they could be employed only in the study of problem pupils or special cases in the schools. If they were to become available for use with large school populations it was necessary that some form of group tests be developed. Single tests adaptable to group-testing purposes had been worked out by Ebbinghaus in his Completion Test, Trabue in his Completion-Test Language Scale, and by Otis in his Following Directions and other single tests, but no one had developed a group-test scale or battery prior to 1917. Otis had, however, laid the mathematical foundations for such an extension of the testing work.

In 1917, after the entry of the United States into the World War, the movement received a great forward impetus through the work of a committee appointed by the American Psychological Association. This committee, made up of leading psychologists of the country, devised Examinations A and B, which were applied to the soldiers in several cantonments, and also by way of testing their validity on a number of thousand school children. The results promised so much in the mental classification of men in the Army that the Division of Psychology, under the direction of the Surgeon General, was created. Revision of Examinations A and B appeared in the form of Examination Alpha. A performance test, for illiterates and those having language difficulties, called Examination Beta, also was standardized. These two examinations, the Alpha and the Beta, were applied to nearly two million men in the Army, and proved to be of real service in the classifying of men according to their mental ability.[1] Men, unfit for military service by reason of mental deficiency, were quickly segregated. The tests were also of great value in revealing those who should be selected for the officers' training camps.

Colvin [2] describes group mental tests, as follows:

Although the Army tests furnish the first instance of the careful preparation, standardization, and use of group intelligence tests, scattered attempts had been made prior to 1917 to employ such tests in an experimental way. The framers of these earlier group tests and of the Army tests were not without guidance in their work. There were, in the first place, suggestions from Binet and those who had revised his work, particularly Terman. Few of the tests in the original Binet Scale or in those of later revisions have been taken over bodily into the group intelligence tests, with the

[1] See *Report on the Army Tests;* Division of Psychology, Surgeon General's Office.

[2] Colvin, Stephen S., in *Twenty-First Yearbook,* National Society for the Study of Education, 1920, part I, chap. III, pp. 33–34. Quoted by permission of the publishers.

exception of those group tests worked out by Terman and Otis, but the principles and the fundamental characteristics of many of the Binet tests have been employed in making the group tests. For example, in the Alpha examination the first test is a directions test; an important test in the Binet Scale is the determination of the ability of the child to execute a series of commands. The second Alpha test is an arithmetical problems test; Binet's original test involved counting and making change, and in Terman's revision we find an arithmetical reasoning test. The third Alpha test consists in selecting from three possibilities the best reason for a statement; while the Binet examination contained no test of this exact character, it provided various simple tests to determine the child's reasoning abilities. The fourth Alpha test presents a list of words associated in pairs. The subject is to determine whether these words are associated by the principle of likeness or opposition. The Binet examination contained a free association test in which the child is required to name all the words he can think of in three minutes. Test five in the Alpha series is a disarranged sentence test. Words are given out of their proper order and they are to be put in the order that will give them sense. This is almost identical with one of the original Binet tests. Test six of the Alpha examination is a number completion test in which a number series is to be filled out according to the principle indicated in the part of the series given. This has no direct counterpart in the Binet series, which, however, uses counting, both forward and backward, as a test of intelligence. Number seven of the Alpha group is an analogies or mixed relations test which has no clear counterpart in the Binet series. Number eight of the Alpha group is a range of information test; a number of the Binet tests are of this general type, though not of the specific form used in the Alpha test. In the Beta group the test that most closely resembles a Binet test is the picture completion test — a test that requires the addition of parts lacking in the picture.

From the above description it will be apparent that a great many of the elements which contribute to the validity of the Binet Scale as a means of determining general mental ability are preserved in the Alpha Scale and the other group mental tests which have since been developed. While it is true that an individual test gives a more accurate measure of

ability than does a group test, the latter, because it can be given to large numbers at a time and be scored objectively, lends itself more readily to the many administrative uses to which such tests may be put. If two group tests, differing in type as do the Terman and the Dearborn group tests, are given, a degree of reliability closely approximating the results of individual tests may be achieved.

III. Value of Mental Tests in Revealing the Possible School Success of High-School Pupils

Individual mental tests. In 1916–17, the writer gave the *Stanford Revision* of the Binet Scale to 107 entering high school pupils. In 1917–18, he gave the same test to 40 high-eighth-grade pupils. In June, 1923, a sixth and seventh year check-up was made on the 131 pupils of the combined groups who entered high school and stayed long enough to make any scholastic record.[1] The prognostic value of the *Stanford Revision* of the Binet Scale is revealed by the data presented in Table II, where the 131 cases are distributed according to Binet I.Q., average school marks, and ultimate school success — that is, on the basis of whether they dropped out of high school to go to work before completing course, graduated from high school only, or graduated from high school and continued education in a higher institution.

In the light of this Table, which shows what actually happened in the cases of these 131 high school pupils, the person who gave the individual Binet tests in 1916–17 might have predicted that 100 per cent of the "very superior," 96 per cent of the "superior," 83 per cent of the "above average," 75 per cent of the average, 40 per cent of the "below average" and zero per cent of the "dull" would complete a high-

[1] Proctor, W. M. *Psychological Tests and Guidance of High School Pupils*, revised edition, chap. IV, pp. 43–62. Public School Publishing Company, Bloomington, Illinois, 1923.

school course. Conversely, he might have predicted that zero per cent of the "very superior," 4 per cent of the "superior," 17 per cent of the "above average," 25 per cent of the "average," 60 per cent of the "below average," and 100 per cent of the "dull" would drop out of high school to go to work, without completing the course. The probability, as indicated by the intelligence quotient, that a high school pupil will not only complete high school but will continue his education in higher institutions is shown in column (4), where it appears that 95 per cent of the "very superior," 82 per cent of the "superior," 54 per cent of the "above average," 28 per cent of the "average," 18 per cent of the "below average," and zero per cent of the "dull" were found in higher educational institutions on June 1, 1923.

TABLE II. RELATION OF SCHOOL SUCCESS TO BINET INTELLIGENCE QUOTIENT, IN CASES OF 131 HIGH-SCHOOL PUPILS, TESTED IN 1916–17, AND FOLLOWED UP FOR SIX AND SEVEN YEARS

INTELLIGENCE QUOTIENT ON STANFORD BINET SCALE	(1) NO. OF CASES IN EACH GROUP	(2) AVE. H.S. MARKS	(3) COMPLETED 4 YR. H.S. COURSE		(4) ENTERED HIGHER INSTITUTIONS		(5) LEFT H.S. TO GO TO WORK	
		Per cent	No.	Per cent	No.	Per cent	No.	Per cent
125 or over (Very Superior)	19	87	19	100.0	18	95.0	0	0.0
115–124 (Superior).....	27	85	26	96.0	22	82.0	1	4.0
105–114 (Above average)	24	82	20	83.0	13	54.0	4	17.0
95–104 (Average).....	36	78	27	75.0	10	28.0	9	25.0
85–94 (Below average)	22	75	9	40.0	4	18.0	13	60.0
75–84 (Dull).....	3	71	0	0.0	0	0.0	3	100.0
Totals.....	131	81	101	77.0	67	51.0	30	23.0

Median I.Q.'s: dropped-out, 94; graduated high school, 111; in college, 118.

If all the cases in Table II are arranged in rank order, according to intelligence quotient, and divided into quarters, the highest quarter will have an I.Q. range of from 119 to 142, and the bottom quarter will have an I.Q. range from 79 to 97. If we consider the school success of the cases coming in the top quarter, we find that 100 per cent of these completed high school, 91 per cent went on to higher institutions, and none of them dropped out. Conditions as to school success in the bottom quarter were just about reversed. Among these cases, 63 per cent dropped out before completing high school, only 37 per cent graduated from high school, and only 12 per cent went on to higher institutions.

As secondary education is now organized and administered in this country there is apparent a close relation between success in high-school work and the intelligence level of high-school pupils. Whether this is as it should be in an institution supported by the taxes of all the people, or whether readjustments should be made to insure to each adolescent in the land an educational opportunity adapted to his native ability, the fact remains that the first step toward such readjustment is the discovery and application of reliable means of determining learning capacity. Individual mental tests, such as the Stanford and other revisions of the Binet Scale, have paved the way for the development and standardization of the measuring devices that are needed.

Group mental tests as a basis for predicting school success. During the academic year 1917–18, the writer, under the direction of Dr. Terman and with the sanction of the Committee of the American Psychological Association which perfected the Army Tests, gave Examinations A and B, and the Army Alpha, Form 5, to about two thousand high-school pupils. Applying the Kohs-Proctor mental-age norms [1] to

[1] Proctor, W. M. *Op. cit.* pp. 118.

the scores in these tests it was possible to compute Group Intelligence Quotients (G.I.Q.'s) for these cases. Table III distributes 955 cases, which were followed up for two years, according to their G.I.Q.'s and school success.

TABLE III. DISTRIBUTION OF 955 CASES OF HIGH-SCHOOL PUPILS, ACCORDING TO THEIR GROUP INTELLIGENCE QUOTIENTS AND SUCCESS IN HIGH-SCHOOL WORK

GROUP I.Q.'s	(1) TOTAL NO. OF CASES	(2) AVE. H.S. MARKS	(3) REMAINING IN H.S.		(4) DROPPED OUT OF H.S. (WORK)		(5) GRADUATED FROM H.S.	
		Per cent	No.	Per cent	No.	Per cent	No.	Per cent
130 or over	62	88	45	73.0	1	2.0	16	25.0
120-129....	101	86	74	73.0	7	7.0	20	20.0
110-119....	221	84	161	73.0	9	4.0	51	23.0
100-109....	283	82	209	74.0	34	12.0	40	14.0
90- 99....	202	75	127	63.0	53	26.0	22	11.0
80- 89....	73	72	43	60.0	26	34.0	4	6.0
70- 79....	13	65	5	38.0	8	62.0	0	0.0
Totals.....	955	81	664	70.0	138	14.0	153	16.0

Median I.Q.: remaining in H.S., 107; dropped-out, 96; graduated, 112.

Median I.Q. of entire group of 955 cases, 105.

Percentage with I.Q.'s below 100: drop-outs, 63.0; in school, 23.0; grad., 17.0.

The same general tendencies discovered in Table II are observable in connection with the data presented in Table III. Two years after the Army group tests had been given

it was found that 138 of the 955 high-school pupils had dropped out to go to work, get married, or to become ladies and gentlemen of leisure. Eighty-seven of these, or 63 per cent, came from I.Q. groups below 100. There were 153 who had graduated from high school during the two-year period. Of these, 127, or 83 per cent, came from I.Q. groups 100 or above. It was also found that the median I.Q. of the "dropped-out" group was 96, and of the "graduated" group, 112. If the same comparisons are made for the cases included in Table II, to whom individual Binet tests were given, we find that 22 of the 30 who dropped out to go to work, or 73 per cent, had I.Q.'s below 100, while 81, or 80.3 per cent of the 101 pupils who graduated from high school, had I.Q.'s of 100 or over; also that the median I.Q. of the 30 dropped-out cases was 94, and of the 101 graduated from high school cases, was 111.

Both Tables II and III show a direct correspondence between mental ability, as revealed by the two types of tests, and success in school work, as represented by school marks. Column (2), in each Table, indicates that there is a distinct progression in average school marks earned by the members of each I.Q. group from lowest to highest. Considering the Binet tested group, Table II, the school marks column (2) represents an average of all the marks received by each pupil while in high school. In the case of the Army test group, Table III, column (2) represents similar treatment for all marks earned during the two-year period following the giving of the group tests.

Group and individual mental tests and college success. In connection with Tables II and III, it has been shown that high-school work, as at present organized, tends to select those of below average mental ability for elimination. Those of average or above average mental ability appear to have by far the best chance of succeeding in their school work, as

such success is measured by graduation from high school and marks earned while in high school. Table IV is made up of data covering 47 cases of students in Stanford University, at the time of writing, who were among the 131 high-school pupils to whom the individual mental tests were given as set forth in Table II, and 93 students, also in Stanford University, who were among the 955 high school pupils to whom the Army mental tests were given, with results as set forth in Table III. These data indicate that the selective process is even more pronounced in colleges and in universities than in the high schools. About 20 per cent of high-school pupils have I.Q.'s below average, 95–104, while only about 4 per cent of college students have such a mental rating.

Both the individual and the group tests seem to distribute the cases fairly well according to ability to succeed in college work, although, for the I.Q. groups 85–94, 95–104, and 105–114, a score on the Stanford-Revision of the Binet Scale seems to indicate ability to do college work of a better quality than is done by students having a corresponding I.Q. score on the group scale. A slight superiority of the individual over the group tests for purposes of diagnosis is probably indicated by these data.

Cautions to be observed in the use of mental tests. While it is true that the use of mental tests in the discovery of individual differences in ability has passed the experimental stage and entered upon the stage of practical application, it should be borne in mind that much yet remains to be done in the way of refinement of technique, both in standardizing and administering the tests. The following cautions should be observed in the giving and interpreting of tests now available:

1. Mental tests should be standardized by psychological and statistical experts only. School administrators are in a position to put this word of advice into practice by refusing to have anything to do with a test of whose pedigree they are at all uncertain.

TABLE IV. TWO GROUPS OF STANFORD UNIVERSITY STUDENTS, DISTRIBUTED ACCORDING TO I.Q.'S ON GROUP AND INDIVIDUAL MENTAL TESTS, AND ALSO UNIVERSITY SUCCESS AS INDICATED BY SCHOLARSHIP RATING [1]

I.Q. GROUPS	STUDENTS TESTED WITH STANFORD-BINET		STUDENTS TESTED WITH ARMY MENTAL TESTS		BOTH GROUPS COMBINED	
	Number	Scholarship	Number	Scholarship	Number	Scholarship
125 or over....	15	1.81	19	1.79	34	1.80
115–124.....	17	1.60	26	1.66	43	1.62
105–114.....	9	1.42	36	1.21	45	1.25
95–104.....	3	1.23	9	1.13	12	1.15
85– 94.....	3	1.20	2	0.99	5	1.11
75– 84.....	0	..	1	0.46	1	0.46
Totals.....	47	1.58	93	1.36	140	1.44

Median I. Q.; Binetted Group, 119; of Army test group, 113; of combined, 116.

2. The giving, scoring, and interpreting of mental tests should be done only by persons specifically trained for that purpose, and not by untrained individuals chosen for the task simply because they happen to be enthusiasts on the subject of testing. The supply of trained workers in this field is now such that no superintendent is justified in employing an untrained person to handle educational tests and measurements.

3. The mental testing program should begin with the kindergarten, and should embrace every child in the school system. The

[1] This scholarship rating is obtained by dividing the total number of honor points earned by the total number of registered hours of a given student. An "A" mark earns three honor points, a "B" earns two, a "C" earns one, and "D" or "E" earn zero honor points. All "A" marks would mean a scholarship rating of 3.00; all "C" marks, a rating of 1.00, and all "D" or "E" marks a rating of zero.

results, if valid, will be found to be of great assistance in educational guidance in the elementary grades.

4. Test results should always be taken in connection with other available data. Since there is an element of probable error, the person tested should always be given the benefit of the doubt, and an effort made to test the test against other criteria.

5. Mental tests should be considered simply in the light of aids in discovering one of the factors conditioning school success. They should not be given too heavy a weighting among the several factors conditioning educational and vocational success, first, because they do not always reveal the true level of a person's intelligence, and second, because character traits and special abilities often counter-balance what appears to be a deficiency in general intelligence.[1]

6. The results of intelligence tests should be regarded as strictly confidential. No other single indiscretion will so quickly discredit a mental testing program as lack of caution in this respect. Unwise publicity given to test results does harm because so few people know what a test score really signifies, and also because any information relating to one's mental capacity, particularly if that capacity happens to be limited, is justly resented. All test results should be as carefully safeguarded from unauthorized scrutiny as the clinical records of a physician. A code should be adopted, if necessary, in recording the data to make sure that only those entitled to examine the records could make anything out of them.

If the above cautions, and others which will occur to any thoughtful student of the problem, are observed, it will be found that standardized mental tests have a real value for purposes of educational guidance. If scientifically validated and applied, such tests will provide the school administrator with an efficient tool for discovering the differences in learning ability among his pupils. With these results in hand he will be in a better position to adjust the work of the school to the individual needs of the children in his school system.

[1] For a discussion of non-intellectual factors, see Chapter III.

QUESTIONS AND PROBLEMS

1. Mention and discuss three causes, other than intelligence, which operate to delay the progress of pupils through the schools.
2. Trace the origin and development of group tests of intelligence.
3. What are the administrative advantages of the group intelligence test? Of individual tests? Which are the more reliable? Why?
4. Why is it necessary, as Thorndike says, to secure ten times as large a sampling to measure the intelligence of an individual as is required to get an idea of the general tendencies of a large group of persons?
5. If the median I.Q. of those who leave high school to go to work is 94, of those who complete high school 110, and of those who enter higher institutions 115, what would probably be the median I.Q. of college graduates?
6. Suggest some of the dangers or pitfalls which beset the path of the mental tester. What cautions should he observe?
7. Why is the vocabulary test one of the best single tests of intelligence?
8. Give a sentence-completion test, such as the Trabue English Test, to a group of first-year high-school pupils. Correlate results with school marks and teachers' estimates of intelligence. If the correlation is below 0.20, what inferences would you draw? If correlation is 0.21 to 0.50, what would be your inference? What if 0.51 or higher?
9. If men who have had no high-school training whatever are admitted to universities and colleges on the basis of high scores on mental tests, and succeed not only in making high scholastic records but in earning degrees, why not eliminate high schools entirely?
10. The headmaster of a private school gave Army Alpha mental tests to the boys in his school. A thirteen-year-old boy made a score of 95, which was twenty-five points below the average for the school. The headmaster reported to the boy's parents that he was mentally defective. What was wrong about this?

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CHAPTER III

FACTORS OTHER THAN INTELLIGENCE WHICH CONTRIBUTE TO SUCCESS IN SCHOOL WORK AND VOCATIONS

Intelligence ratings and school marks. Writing of the use of mental tests in connection with school work, Dr. Cattell recently made the following statement: [1]

> Intelligence tests measure the combined native and acquired ability of an individual to deal promptly and correctly with the various situations presented in the tests. When applied to school children these tests indicate what the children *can* do better than what they *will* do.

These words of Dr. Cattell emphasize a truth with which all those who have worked experimentally with intelligence tests are well acquainted, i.e. that there is frequently a wide margin between the child's native ability as shown, even though imperfectly, by mental tests, and his achievement as shown, again imperfectly to be sure, by school marks.

The data presented in Table V illustrate the wide gap to be found between possible school success and actual school success.[2] The I.Q.'s of 131 high school pupils are here set over against the average of all their marks while in high school. The four cases having I.Q.'s of 135 or over earned high school marks of A, B+, B, and C. The three very dull students, having I.Q.'s of 79, 82, and 83, respectively, made average school marks of C+, C−, and D. All of the

[1] Cattell, J. McKeen. Address before Psychological Section, National Scientific Societies, January, 1924.

[2] Proctor, W. M. *Psychological Tests and the Guidance of High School pupils*, chap. IV, p. 46. Public School Publishing Company, Bloomington, Illinois, 1923.

very superior pupils graduated from high school, and none of the three very dull ones remained in high school for more than one and one-half years. The fact remains, however, that the very dullest pupil, with an I.Q. of 79, made an average of C+ during the time she remained in high school, while next to the brightest pupil, with an I.Q. of 137, made an average scholastic record of the very same quality — that is, C+. Evidently one of these pupils was working far under his native capacity, and the other was doing much better work than her mental test showing would have warranted one in expecting.

TABLE V. DISTRIBUTION OF 131 HIGH-SCHOOL PUPILS ACCORDING TO INTELLIGENCE QUOTIENTS ON STANFORD BINET SCALE, AND AVERAGE OF ALL SCHOOL MARKS WHILE IN HIGH SCHOOL

AVE. OF ALL SCH. MARKS	BINET INTELLIGENCE QUOTIENTS							TOTALS
	75–84	85–94	95–104	105–114	115–124	125–134	135 or over	
A.....	0	0	0	3	4	4	1	12
B+.....	0	0	2	5	8	4	1	20
B.....	0	7	19	8	12	7	1	54
C+.....	1	5	5	4	2	0	1	18
C.....	1	4	6	3	1	0	0	15
D.....	1	5	3	1	0	0	0	10
E.....	0	1	1	0	0	0	0	2
Totals....	3	22	36	24	27	15	4	131

Median I.Q. 106; median school mark, B; Correlation 0.554; P.E. ± 0.041

In addition to the spread of achievement of the highest and lowest groups in intelligence, it is worthy of note that

those having intelligence quotients which rank them in the median group — that is, 105–114 — made average scholastic records from A to D, inclusive. Again, the correlation of 0.554 with a P.E. of ±0.041, while indicating a significant relationship between intelligence as measured by mental tests, and school success as indicated by school marks, shows that the relation is not by any means perfect.[1] In other words, there are factors, not measured by the mental tests, which enter into school success. These factors, however, are very important, and must be taken into the account in the educational guidance of children. Brief consideration will be given to some of these non-intellectual factors in the following sections.

I. General Factors

Previous training. The pupils in a given high school are drawn from a variety of elementary schools. Some of them come from rural schools, where all of the grades are taught by one or two teachers, not infrequently poorly trained. Some of them come from town or village schools, where salaries are meager and equipment is poor. City surveys [2] indicate that even within a well-organized city system there are marked differences in the quality of the training to be had by elementary pupils.

An excellent illustration of this point is furnished by a certain California union high-school district. In the school year 1922–23, for which records were taken, the Palo Alto Union High School District was made up of four elementary school districts. One had a one-room, rural, elementary school in which all eight grades were taught by one teacher.

[1] Toops, H. A., and Symonds, P. M. "What shall we do with the A.Q.?" in *Journal of Educational Psychology*, vol. 13, pp. 513–28; and vol. 14, pp. 27–37.

[2] *The Boise School Survey*, by Sears *et al.*, p. 115 ff. World Book Company, Yonkers, New York, 1920.

Another had a three-teacher, eight-grade, elementary school. Another had one eight-room building, where from forty-five to sixty pupils were crowded into poorly ventilated and lighted rooms and taught by underpaid and overworked teachers. The Palo Alto City District, on the other hand, had several well-equipped, six-grade, elementary schools, and an Intermediate School for the seventh and eighth grades. This Intermediate School was conducted on a modification of the platoon plan; had excellent physical education, handwork, drawing, music, and modern language instruction; and its periods for academic work were of sixty minutes' duration, divided thirty minutes for study and thirty minutes for recitation. In charge of the Palo Alto Elementary District was a well-trained superintendent of schools, giving all of his time to administration and supervision. The other districts mentioned had no supervision whatever, except an occasional visit from the county school superintendent.

An investigation of the high-school marks earned by the children coming up to the Palo Alto Union High School from the various elementary-school districts described above brought out the fact that — intelligence as indicated by group mental tests being equal — those pupils who came up to the high school from the Palo Alto Intermediate School made much better grades during the first high-school year than did those who came from the other elementary schools of the district. Since the first high-school year is the period when failure is most apt to cause discouragement and result in elimination, the factor of previous training is one that should receive thoughtful attention.

Poor teaching and teachers' marks as factors.[1] The fallibility of the marking systems in vogue in our high schools

[1] Kyte, George C. "Evolution of a Marking System from Chaos to Order"; in *Educational Administration and Supervision*, vol. 6, pp. 9–16.

has been frequently emphasized in recent years, and serious efforts have been made to find more scientific ways of evaluating the work of students in high schools and colleges. When to the inequalities in marking, due to the personal equation of the marker, we add the poor teaching of which many high-school teachers are guilty, we can see an additional reason for the lack of agreement between mental capacity and school work. Poor teaching militates against the bright students in a class, because their interest is not aroused and they are content merely "to get by," while the less bright and the dull suffer through lack of adequate stimulus or explanation, or both, and, becoming discouraged, do not put forth even the quality of effort of which they are capable.

The writer recently had occasion to look over the marks given by the teachers of a high school to their first-year pupils. He found that seventy-five per cent of the "E" (failure) marks were given by five of the twenty-two teachers concerned. One of the five teachers had "flunked" or "conditioned" fifty-one per cent of the members of his class in elementary algebra. Another teacher had branded forty-seven per cent of her English pupils with the red "E." In these two instances the correlation between intelligence and school marks was a minus correlation. Where poor teaching and vicious marking are apparently wedded, as in the cases just cited, the result on the morale of high-school pupils can readily be imagined. Such revelations give the lie to the tradition that all a high-school teacher needs to know is his subject. He needs not only to know his subject thoroughly, but to be trained in the best methods of teaching as well as in scientific methods of marking before he is in a position to do justice both to the subject and the pupil.

Social and economic status as a factor. Given equal mental ability, differences between children which are ap-

parently traceable to social and economic status of the home from which they come are often found to exist. In Table VI is given a distribution of one hundred and ten cases of high-school children, made according to their intelligence quotients and the rank of their fathers' occupations.[1] Also the average of all school marks, earned by children whose fathers' occupations fall in the same rank is given. The table indicates not only that there is a correspondence between intelligence and school marks, but that children of the same intelligence coming from homes where the social and economic status are high earn higher average marks than do the children from the low-ranking homes.

This is more clearly shown if all the cases coming under a given intelligence quotient group are considered. Take, for example, the eighteen cases falling within I.Q. group 85–94, which is supposed to indicate pupils so dull that they will have great difficulty in doing high-school work. There are two in this group whose fathers' occupations ranked IV on the Barr Scale. Both of these pupils did high-school work averaging 68 per cent, and both left high school to go to work before completing the second year of high school. In nine cases the father's occupation ranked III. Seven, or 78 per cent of these, dropped out of high school to go to work, and the combined average of their school work was 75.1 per cent. Two finished high school with average scholarship of 82.5 per cent. None went on to college. The rank of the father's occupation was II in seven cases. One of these, with average high-school marks of 75.0, dropped out to go to work. Two of them, having average school marks of 81.5, completed high school only. Four, or 57 per cent, with average school marks of 81.5, graduated from high school and went on to college.

[1] Occupational ranking is according to the "Barr Scale" (see author's monograph, pp. 120–23).

Taking account of the data presented in Table VI, it is apparent that social and economic status, as represented by the father's occupation, has a direct bearing upon the probability that a given pupil will complete a high-school course. Intelligence being equal, there is a greater chance that the

TABLE VI. SHOWING RELATION BETWEEN SOCIAL AND ECONOMIC STATUS AND SUCCESS IN HIGH SCHOOL OF PUPILS OF VARYING MENTAL ABILITY

I.Q. GROUPS	RANK OF FATHER'S OCCUPATION										TOTALS	
	V		IV		III		II		I			
	Cases	Marks	Cases	Marks	Cases	Marks	Cases	Marks	Cases	Marks	Cases	Marks
135–over	0	0.0	0	0.0	0	0.0	3	81.0	1	88.0	4	83.
125–134.	0	0.0	1	88.0	0	0.0	7	85.0	6	87.0	14	86.
115–124.	0	0.0	0	0.0	6	81.0	8	86.0	10	86.0	24	85.
105–114.	0	0.0	0	0.0	10	82.0	8	85.0	3	85.0	21	83.
95–104.	0	0.0	1	80.0	14	77.0	11	82.0	2	84.0	28	79.
85– 94.	0	0.0	2	68.0	9	76.0	7	81.0	0	0.0	18	77.
75– 84.	0	0.0	0	0.0	0	0.0	1	65.0	0	0.0	1	65.
Totals..	0	0.0	4	76.0	39	79.0	45	83.0	22	86.0	110	80.

child of the father with an occupational rank of I or II will complete high school than that the child of the unskilled, semi-skilled, or skilled laborer will do so.[1]

Social and economic status and attendance at college. The bearing of economic and social status upon continuance of education in college, after graduation from high school, is even more strikingly apparent. A careful follow-up of the cases listed in Table VI has brought out the fact that 89 per cent of those who went to college, after graduation from high school, came from homes where the rank of the father's occupation was I or II. On the other hand, 81 per cent of

[1] Madsen, I. N. "The Contribution of Intelligence Tests to Educational Guidance in High School," in *School Review*, vol. 30, pp. 692–701.

those who dropped out to go to work, and did not graduate from high school, came from homes where the father's occupation ranked III or IV. There were no cases with father's occupation ranking V in the distribution.

These and similar studies show that, where intelligence and social status both rank low, the chances are about nine out of ten that the child will leave high school and go to work. Where intelligence and social status are both high, the chances are about nine out of ten that the child will both graduate from high school and enter college. Average intelligence, combined with high social status, means about a seven out of ten chance; and below-average intelligence, combined with high social status, means about a five out of ten chance that education will be continued beyond high school. In any event, social and economic status, and particularly social status, must be taken into account in any effort to estimate the probable school success, as well as the probable duration of school attendance, of a child having a given mental capacity.

II. Personal Factors

Health. The physical condition of a child tends to affect the quality of his performance in mental tests, and also in regular school work. Mental functions are so closely allied with physical functions that any impairment of the latter tends to disturb or weaken the former. In addition to the immediate effect of ill-health upon ability to master school tasks, there is the indirect effect of frequent absences.[1] It is only the above-average and superior child which can overcome the handicap of having missed a considerable portion of the class exercises in a given subject and, by making up back work, attain promotion on time. The below-average,

[1] Odell, C. W. "The Effect of Attendance upon School Achievement"; in *Journal of Educational Research*, vol. 8, pp. 422–32.

dull, and backward children find great difficulty in carrying current burdens, in addition to bringing back work up to date, and many of these fail of promotion or, becoming discouraged, drop out of school entirely. Physical defects and chronic ailments, all too frequently undiscovered by school authorities, likewise play an important part in holding a child back from a maximum accomplishment according to ability.[1]

Character traits. Space does not permit an extended discussion of habits and ideals. Attention will merely be called to certain character traits which are a matter of common observation among teachers, and which materially influence success in school work. At any rate the traits to be mentioned are those usually taken into consideration by teachers in giving their marks.[2] These traits are industry, courtesy, honesty, dependability, coöperativeness, loyalty, and conscientiousness. Industry is exemplified in application to school tasks; courtesy in demeanor toward teachers and associates; honesty in performing promises, and relying on one's own knowledge and ability; dependability in faithful execution of tasks assigned regardless of effort required; cooperativeness in willingness to work harmoniously with others for common ends; loyalty in enthusiastic support of school standards and ideals; conscientiousness in scrupulous adherence to standards of right conduct in school and personal affairs.

Efforts to measure these traits objectively have not yet met with striking success, partly because the scientific technique is as yet far from perfect, and partly because of the

[1] Terman, L. M., and Hoag, E. B. *Health Work in the Schools*, pp. 1–13. Houghton Mifflin Company, Boston, 1914.

[2] Miller, W. S. "The Administrative Use of Intelligence Tests in High Schools"; in *Twenty-First Yearbook*, National Society for Study of Education, 1922, part II, chap. VII, and particularly page 211. (For influence of character traits upon school marks given by teachers.)

difficulty of isolating character traits for purposes of testing and statistical treatment.[1] Enough has been done, however, to indicate that there are great individual differences among children in the combinations and amounts of these traits possessed by each. Also it appears that favorable as well as unfavorable combinations of moral traits are found in conjunction with every degree of mental ability from the lowest to the highest, and that these moral traits very greatly influence the quality and direction of mental effort.[2]

The character traits, above referred to, are very largely the resultant of home training, community life, school life, and the reactions of the individual to these influences. The hopeful side of the situation lies in that, if the coöperation of the individual can be enlisted, unfavorable traits may be transformed into favorable ones, and an anti-social or incorrigible person may be developed into an "other-regarding," helpful, social unit. It is quite certain that our secondary schools have been overlooking the possibilities of improving school work by paying attention to the cultivation of character traits which have a direct bearing upon school success. The tendency has undoubtedly been to eliminate speedily, regardless of their mental ability, those pupils whose behavior did not conform to school standards, on the ground that the high school is not "a reform school." Without advocating the retention of the criminally vicious, who should be placed in institutions for appropriate social and pathological treatment, it is entirely proper to urge that the high school should accept its due share of responsibility for character training, and that it should undertake to dis-

[1] Cady, Vernon M. *The Estimation of Juvenile Incorrigibility.* Journal of Delinquency, Monograph no. 2, chap. II, pp. 20–30.

[2] Rugg, H. O. "Is the Rating of Human Character Practicable?" in *Journal of Educational Psychology*, vol. 12, pp. 425–33; 485–501; and vol. 13, pp. 30–42; 81–93.

cover and apply the most approved principles of character formation in its dealing with adolescent youth.

Importance of character traits. The importance of character traits in connection with vocational fitness and success has been stressed by many writers. C. R. Mann [1] made a study of the qualifications and characteristics most essential to success in the engineering profession. The six qualifications which were mentioned with the greatest frequency by the nine thousand engineers answering the questionnaire sent out by Dr. Mann were, in order of times mentioned: character, mind, force, social qualities, knowledge, and technique. Character held first place in the estimation of these practical engineers, and the character traits considered to be of greatest value for the engineer were: (1) physique, bearing, appearance; (2) personality, temperament, disposition; (3) attitude, sincerity; (4) integrity, stability, trustworthiness; (5) loyalty, ideals, and religion.

Many of these character traits listed by the engineers are identical with the traits above mentioned as greatly influencing school success. To the extent, therefore, that these traits may be modified or strengthened on the favorable side, they become a matter of active interest for the elementary and secondary school teacher and administrator.

Personal disposition. Disposition is closely allied to will, or temperament, or energy-drive, or whatever it is that accounts for a person's capacity for sustained application in his effort to attain a given goal or objective. John Dewey says: [2]

> By will, common-sense understands something practical and moving. It understands the body of habits, of active dispositions

[1] Mann, C. R. *A Study of Engineering Education*, Bulletin 11, pp. 106 ff. Carnegie Foundation, 1918.

[2] Dewey, John M. *Human Nature and Conduct*, chap. III, pp. 44–46. Henry Holt & Co., New York, 1922. Quoted by permission of the publishers.

which makes a man do what he does. Will is thus not something opposed to consequences or severed from them. It is a cause of consequences; it is causation in its personal aspect, the aspect immediately preceding action. . . . We take the will for the deed, not as a substitute for doing, or a form of doing nothing, but in the sense that, other things being equal, the right disposition will produce the right deed. For a disposition means a tendency to act, a potential energy needing only opportunity to become kinetic and overt. Apart from such a tendency a "virtuous" disposition is either hypocrisy or self-deceit.

Common sense in short never loses sight wholly of the two facts which limit and define a moral situation. One is that consequences fix the moral quality of an act. The other is that upon the whole, or in the long run, but not unqualifiedly, consequences are what they are because of the nature of desire and disposition. . . . Disposition is habitual, persistent. It shows itself in many acts and many consequences. Only as we keep a running account, can we judge disposition, disentangling its tendency from accidental accompaniments. When once we have got a fair idea of its tendency, we are able to place the particular consequences of a single act in a wider context of continuing consequences. . . . There is no need to abandon common sense which tells us in judging acts first to inquire into disposition; but there is great need that the estimate of disposition be enlightened by a scientific psychology.

The significance of the above analysis for the teacher and counselor of youth lies in the fact that it emphasizes the necessity for a study of disposition as a factor in the successful accomplishment of tasks requiring sustained attention and application. If "disposition is a tendency to act," and if "the right disposition will produce the right deed," also if "on the whole or in the long run, but not unqualifiedly, consequences are what they are because of the nature of desire and disposition," then the study of disposition and its relation to school progress in individual cases becomes one of the most vital problems in educational and vocational guidance. Because of the nature of disposition, however, it cannot be justly appraised as the result of one act or reaction to a single situation.

Disposition materially influences scores made in various tests, and some promising results have been attained in the effort to measure this influence as will or energy drive.[1] Such tests can at best, however, give a mere outline or profile of the real thing. The details, and possibly the most important details must be "sketched in" as a result of long-continued observation, quickened by sympathetic insight. Parents, teachers, friends, and the subject himself must needs make contributions to the completed picture, which will necessarily be imperfect because of the lack of scientific technique for the making and recording of such data. Lack of perfect equipment, however, is no excuse for failing to take advantage of the available facilities. There should be provided means for the recording of a pupil's estimate of his own aptitudes, traits, and dispositions, as well as the estimates of his parents, teachers, and friends.[2] Such records should be supplemented by the results of his reactions to objective tests also, if these are available.

Personal ambition. Ambition, in the sense in which we shall discuss it here, means the keying of effort to an anticipated good — the cherishing of an attainable goal as the objective of one's activity. It supplies incentive and gives direction to thought and action. Ambition has a strong emotional flavor, and, while it is by no means confined to the adolescent years, it is during that period when it comes most naturally to play an important part in the life of a given individual. "The thoughts of youth are long, long thoughts," and earlier in life than we sometimes imagine they begin to center around "the place in the sun" which the youth hopes some day to occupy. Herein lies both an opportunity and a

[1] Downey, June. "Adolescent Will-Profile"; in *Journal of Educational Psychology*, vol. 11, pp. 157–64.

[2] Self-rating by pupils and rating of children by parents should be done on Scale employed in securing teachers' ratings of their pupils. See footnote no. 1, p. 58, this chapter.

danger for the adult interested in the guidance of youth. The danger lies in the possibility that temporary interests will be taken too seriously by adult advisers, and either unwisely opposed or unfeelingly scoffed at. The opportunity is found in the use that may be made of such life-career interests, even though temporary, as a motivation for desirable activity.

While a given life-career motive is uppermost in the mind of a boy he will read with avidity all that he can find or that others may suggest regarding a given vocation. He will work hard on the school subjects supposed to have a bearing upon preparation for the calling of his choice, and, even though he later finds that he is not adapted to that particular occupation, his horizon has been enlarged, his fund of worth-while knowledge of men and things has been increased, and he is in a better position than before to make a final choice that may prove to be the right one. The words of Jesse B. Davis are pertinent in this connection: [1]

> Those who fail in school, those who fail in business, are those content to drift and have no goal in view for which to fight. Therefore, the teacher or counselor makes no grave mistake in urging a boy or girl seriously to attempt to make a choice, provided that boy or girl has taken the preliminary steps leading up to this period; namely, holding an ambition to be somebody worth while in the world, realizing the value of education as a preparation for efficiency, knowing the power of character in bringing success, having eyes and heart open to the call of service, and searching his innermost being to find its most worthy expression.

Early vocational ambitions. Much has been said and written about the unreliability of the vocational ambitions recorded by children in answer to the questions of teachers and others regarding their life plans. There are those who

[1] Davis, Jesse B. *Vocational and Moral Guidance*, p. 81. Ginn & Co., Boston, 1914.

hold that since destiny is wrapped up in one's life career it is not only dangerous but actually criminal to advise another in such matters. There have been, undoubtedly, many cases of unwarranted interference on the part of parents and guardians in the life plans of young persons. There are likewise character analysts, pseudo-psychologists, and other charlatans who, for a consideration, will render cock-sure judgment as to just the particular niche in life a given inquiring youth is by nature destined to fill.

These dangers should be fully realized, and consistent effort be made to counteract them, but those who are interested in educational and vocational guidance for the children of the public schools should have neither the squeamish fears of the destiny worshipers nor the dangerous self-assurance of the false prophets of guidance. Since we know that ambitions or life plans may be utilized in the motivation of school tasks, it will be found to be worth while to keep in touch with what children are thinking along these lines. The tentative nature of such plans will be recognized, but the teachers and counselors will be interested in them because they afford another angle from which to arrive at a better understanding of the reasons for a given child's failures or successes.

III. Methods of Evaluating Factors Other than Intelligence

Previous training. Data should be secured on the schools attended and the scholastic record of all pupils who are to be counseled or classified for purposes of instruction. Not only should the type of school, whether rural, village, or city be ascertained, but there should also be information on file regarding organization and efficiency. Such questions as the following should be answered:

Is the school or school system organized on the "8–4," or the "6–3–3" basis?

Is there adequate equipment? Does it have effective supervision?

Is the program of studies scant, or diversified?

Are the teachers well trained and experienced? How do pupils trained in this school or school system compare in accomplishment with children from the same grades of other schools?

The most satisfactory means of determining scholastic accomplishment for children up to the ninth or tenth grades is to give them one of the standardized achievement tests, such as the Stanford or the Indiana Achievement Tests, the Illinois Examination, or the Otis Classification Test.[1]

Quality of teaching. The efficiency of elementary teachers is, in most cases, estimated by superintendents or principals on a purely subjective basis. Naturally there is very little correlation between the guesses of one superintendent and another when the same group of teachers is rated by both. High-school principals seldom supervise the classroom work of their teachers, hence their judgments relating to teaching efficiency are even less reliable than those rendered by elementary supervisors. There is widespread recognition of the need for improving the technique of teacher rating. Numerous scales have been devised and applied, but as yet none of them have proved to be entirely satisfactory. Such a rating scale to be an improvement over the prevailing method should take account of the following items:

Is classroom work effectively organized?

Are students shown just what is expected of them, and how to go about their tasks?

[1] *The Stanford Achievement Test* is published by the World Book Company, Yonkers, New York; *The Indiana Achievement Test*, published by Teachers College, Columbia University, New York; *The Illinois Examination*, published by Public School Publishing Company, Bloomington, Illinois; and the *Otis Classification Test*, published by the World Book Company, Yonkers, New York.

What is the attitude of the teacher toward her students?
What is the attitude of the students toward the teacher?
What is the attitude of the students toward their work?
Does the teacher respond to suggestions for improving her methods?
How does this teacher compare in general effectiveness with other teachers? (Make an objective scale by arranging ten teachers of your acquaintance in rank-order of effectiveness, from "best" to "poorest," and indicate the one of these teachers which the person rated most nearly resembles.)

Judgments of supervisors, fellow teachers, and pupils should be secured and correlated with teaching success, as measured by progress of pupils, such progress to be shown by scholastic attainments of class in light of intelligence and other criteria.[1]

Teachers' marks. The first step in the improvement of marking technique is the clear definition of the different degrees of quality represented by each symbol in the marking scale [2] — whether words, such as "superior," "average," "failed"; or letters, "A," "B," "C," etc.; or numerals, "1," "2," "3," etc. The second step consists in instructing teachers to mark their tests and examination papers on a relative rather than an absolute scale. That is to say, to take the median performance of the group examined as the point of departure for assigning the different degrees of excellence, in terms of the Standard Deviation from the Mean, or point of reference.[3] In this connection the teachers should be informed regarding the approximate number of pupils who would attain scores represented by each step of the scale if one thousand unselected children were impartially tested and objectively scored. They should be told to

[1] Whitney, Frederick L. "The Analysis of Teaching Functions"; in *Journal of Educational Research*, vol. 7, pp. 297–308.

[2] Wood, Ben D. *Measurement in Higher Education*, pp. 150–53. The World Book Company, Yonkers, New York, 1923.

[3] Wood, Ben D. *Op. cit.*, pp. 145–50.

at least have in mind such an ideal curve of distribution when scoring their papers. The third step in improving marking technique consists of encouraging teachers to employ a variety of testing and examination plans. In other words to try out some of the newer types of examination, such as: the "true-false" test, the "completion," and the "recognition," or "best answer" test.[1] Among the advantages of the "new type" examinations may be mentioned the following: a much wider range of subject-matter can be covered than by the "essay type" of examination; it is possible to score the "new type" examinations objectively; and as a result of many experiments the "new type" examinations have been proven to be much more reliable than the "essay type." [2]

Health. An examination of the child's attendance record, together with the excuses offered for absence, will frequently afford an explanation of the failure of the child to make school progress commensurate with his mental ability. On the cumulative record card of each pupil there should be space for the recording of essential health data. The items on the permanent record should be confined to those which are significant as indicating physical weaknesses or defects serious enough to have a bearing upon school progress or occupational choice. The facts regarding physical well-being and health should receive attention, as is indicated in a later chapter.[3]

Character traits. The Bureau of Research and Guidance of the Pasadena, California, Public Schools is carrying on an interesting experiment in the relation between character traits and success in school work.[4] The following traits and

[1] Wood, Ben D. *Op. cit.*, pp. 177–86.
[2] Wood, Ben D. *Op. cit.*, pp. 186–200.
[3] Chapter IX, "Health and Physical Guidance."
[4] Hughes, W. Hardin. "A Rating Scale for Individual Capacities, Attitudes, and Interests"; in *Journal of Educational Method*, vol. III, pp. 56–65.

attitudes of 1030 junior and senior high school pupils were rated: "quickness of thought"; "memory"; "force of personality"; "capacity for leadership"; "initiative, or aggressiveness"; "control of attention"; "self-confidence"; "sense of accuracy"; "coöperativeness"; "regularity, or persistency"; "trustworthiness"; and "respect for authority."

Analyzing the records made by 56 junior high-school honor-society students on the rating scale, it was found [1] that 49 of them were in the top quarter of the entire class, in retentiveness of memory; in quickness of thought, 46; in trustworthiness, 45; in strength and control of attention, 44; in regularity and persistence, 44; in sense of accuracy, 42; in self-confidence, 37; in initiative and aggressiveness, 34; in force of personality, 34; in respect for authority, 29; in leadership, 28; and in coöperativeness, 27. The honor-society students appear to be very strong in individualistic, but rather weak in social traits, such as "respect for authority," "leadership," and "coöperativeness."

The conclusions drawn by the Director of Educational Research and Guidance of Pasadena, after two years of experience with character-trait rating, are as follows: [2]

1. Trait-rating affords the teacher a better understanding of the individual student. The teacher cannot conscientiously fill out the record unless she knows.
2. It affords a basis for the modification of school and class-room procedures. If these traits and attitudes are valuable in education, then the school situations and methods need to be adjusted to their development.
3. It gives a better understanding of special groups, such as above-average and superior students who are doing poor

[1] Hughes, W. Hardin. "Organized Personnel Research and its Bearing upon High-School Problems"; in *Journal of Educational Research*, vol. 10, pp. 386–98.

[2] Hughes, W. Hardin. *Op. cit.*, p. 397. Quoted with the permission of the publishers, The Educational Research Association, B. R. Buckingham, Editor.

school work, or below-average and average students who are doing superior school work, which entitles them to membership in honor societies, etc.

4. Follow-up of trait-rating brings out the fact that teachers' marks for scholastic achievement are based, to a large extent, on the student's possession of desirable character traits. These data indicate that teachers should be trained to give marks for scholastic achievement alone, and that other marks should be devised for character traits and attitudes because they are important enough to deserve separate consideration.
5. Coöperation of parents in filling out trait-rating scales for their own children will tend to bring about a better understanding between the home and the school, resulting in better coöperation.
6. Self-rating by the students, on the same scale upon which they are being rated by teachers and parents, will tend to turn the students' attention to the importance of cultivating proper traits and attitudes. Students are inclined to attach importance to things which are being measured, recorded, and used.
7. Justice in marking and teacher judgments will be more apt to be accorded all groups of students when teachers and counselors have a more accurate knowledge of the character-traits of their students than they could possibly gain by their own subjective judgments.
8. Trait-rating and analysis will result in more scientific counseling, because it will help to furnish a wider basis of knowledge and information about the students upon which to predicate advice.

Personal ambitions. The fact that the personal ambitions of students may be utilized for purposes of motivation of school work makes the discovery and recording of such ambitions an important item in any program of educational and vocational guidance. Care should be taken to avoid attaching too much importance to the idea of a permanent choice of occupation during the elementary and junior high-school phases of education. On this account the following principles should govern the gathering and use of such data:

1. During the first six grades the interest of children in occupations should be almost entirely exploratory; i.e., they should be encouraged to have an interest in as wide a range of occupations as possible, special interests being utilized for purposes of intensive study.
2. In junior high school it may be advisable to encourage a pupil to indicate three or four occupations in which he may have acquired a particular interest. Exploration in the junior high school should consist not only of gaining further information *about* occupations, but also of actual *try-out* experiences in the school shops and class-rooms, or in the occupations themselves.[1]
3. In the senior high school there will be a much larger proportion of the pupils who will have made a definite selection. These should be encouraged to make further study of the occupation chosen, and of their own capacities and interests with reference to success in that line of work.
4. All pupils should be made to understand the seriousness of a permanent choice of a life-work. All should be encouraged to postpone an ultimate decision as long as possible; to assume a sufficiently critical attitude toward the occupation chosen to insure thorough try-out and investigation; and to arrive at a final decision only after thinking the thing through for themselves.
5. The interest and coöperation of parents should be enlisted. Particularly should parents as well as advisers be warned against undue pressure for early decision. The rôle of both parents and counselors should be that of sympathetic advisers, and not that of dictators.

Importance of these non-intellectual factors. Whether the factors herein discussed are general or personal; whether due to previous training, poor teaching, teachers' marks, or social and economic status; or whether due to health, character traits, or personal ambitions — there is a reasonable certainty that such factors do materially influence school success. It cannot be too strongly urged, therefore, that

[1] Chapter XIII, "Guidance in Acquiring Vocational Information."

dependence upon intelligence alone, in attempting to give educational and vocational counsel, is a very unwise and unscientific method of procedure. It is only possible to arrive at a near approximation of the true status of a child, in any given case, by taking account of all of the factors which enter into the school performance of that child.

QUESTIONS AND PROBLEMS

1. If teachers were ranked in order of teaching ability on the basis of subject-matter tests given to their pupils at the beginning, and again at the end of a school year, how would a teacher be rated whose first-grade pupils had a median I.Q. of 87, when compared with a teacher whose first-grade pupils had a median I.Q. of 107?
2. In the above situation, work out a formula which would be both fair and workable and at the same time rely in the main upon objective data.
3. What place, if any, should the judgments of pupils regarding the teaching ability of their teachers have in a rating scale for teachers?
4. Which occupation represents the higher economic status, the plasterer at a wage of $10 to $14 per day, or the high-school teacher in a city of 50,000 or over?
5. If the son of a plasterer and the son of a high-school teacher are both members of a high-school graduating class, which of the two, assuming equal intelligence, is more likely to go to college?
6. We assume that character traits play a large part in the success which a person will attain in school and also in his vocation. Is there any present means of measuring this factor objectively?
7. Is there any scientific justification for the claim that traits of character and personality cannot be objectively measured?
8. What should be the attitude of educational and vocational counselors toward questions which can be settled ultimately, perhaps, in the research laboratory, but which at present are being discussed with wide margins of disagreement among the experts?
9. Is the practice of encouraging elementary-school children to express vocational preferences justifiable?
10. If the school undertakes to cultivate character traits which employers list as being desirable, is there any danger that traits equally desirable from the standpoint of citizenship in a democracy may be overlooked?
11. A girl of thirteen years, chronological age, while in the eighth grade has ambition to be an art teacher, in high school this ambition is

changed to that of laboratory chemist, in college she is preparing to be a teacher of modern languages. Discuss this case from the standpoint of relation of personal ambition to school success.

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CHAPTER IV

EXPLORATION OF SPECIAL INTERESTS AND ABILITIES

I. Relation of Special Interests and Abilities to School and Vocational Success

Mental test scores not a sufficient basis for guidance. A knowledge of general mental level, even when supported by school records and such information regarding non-intellectual factors as were set forth in the preceding chapter, is inadequate as a basis for educational and vocational guidance.[1] Even after general intelligence has been measured with an approximation to accuracy, and after such non-intellectual factors as health, previous training, social status, disposition, etc., have been taken into the account, there yet remains the field of special interests and abilities to be explored. It is a matter of common knowledge that persons equal as to all of the elements mentioned above, in so far as present measurements can determine, display marked degrees of difference in accomplishment when engaged in the same school task or vocation. Again, persons having all of the qualifications assumed to be essential for success along a given line utterly fail, while others, apparently meagerly endowed, make a distinct success in that field in spite of their handicaps.

In this connection may be cited the cases of two college students who came under the writer's direct observation. Both of these men were working toward the employment objective, "Oil Geologist." Both were disabled veterans of

[1] Fryer, Douglas. "Occupation Intelligence Standards"; in *School and Society*, vol. 16, pp. 273–77, also a reply by Forbes, A. W., in *School and Society*, vol. 16, pp. 414–16.

the World War, receiving $100 per month compensation, plus tuition and book expenses. One of them made a score on the Terman Group Test of Intelligence of 205 — "Very Superior." [1] The other made a score of 105, which for a person more than sixteen years of age meant "below average." [2] In addition to high-grade intelligence, the first mentioned had had every advantage socially, economically, and educationally. The second named had worked to support his widowed mother from age fourteen, had had only two years of high-school preparation, and had been admitted to the university as a special student under a ruling favoring wounded ex-service men. The highly favored one "flunked out" at the end of his second year. The "below-average" one pulled through — on a scant margin, to be sure — but having earned, in addition to his A.B. in Geology, the respect and backing of his instructors. He is now successfully engaged in his chosen occupation of oil geologist. The other man tried three different occupations during the three years after graduating "by request," the third of which was as a salesman of paint products. Advisement based solely on intelligence level and previous schooling would no doubt have encouraged the brilliant man and discouraged the less able man in regard to a profession requiring college graduation as a minimum educational requirement.

A study of special interests and abilities essential. The real key, however, to the difference in accomplishment of these two men was found to be the differences in their special interests and abilities.[3] The high I.Q. man had no mechanical ability and but slight mathematical ability. The other,

[1] Case no. 12, of the 13 A+ regular students listed in Table 29, of the author's Monograph, *Psychological Tests and Guidance of High School Pupils*, revised edition, pp. 112.

[2] Case no. 5, of 41 special students listed in Table 28, *ibid.*, pp. 107.

[3] Thorndike, E. L. "The Relation of Interests to Abilities"; in *School and Society*, vol. 5, pp. 178–79.

although barely making passing grades in English, economics, and modern languages, had a high degree of mechanical ability and better than average ability in mathematics. Since both of these special abilities were essential to master the prescribed basic preparation for either geology or mining engineering, the man whose general intelligence was low was able to outdistance the man whose general intelligence was high. There was a further difference, not brought out by the general intelligence test, which contributed to the final result. The man whose general intelligence was below average had, in addition to superior mechanical ability and above average mathematical ability, certain favorable character traits. He was steady, reliable, even tempered, and persistent. He failed twice in English, but managed to pull through the third time. He took no account of the extra time necessary to perfect drawings, topographical maps, or geological surveys. The other man was flighty, temperamental, contentious, easily discouraged, could not stand criticism of his work, and lacked power of sustained interest and effort.

These two cases support the contention that both school success and vocational success are conditioned by so many factors other than intelligence that every effort must be made to secure an appraisement of these other factors before presuming to engage in the serious task of advisement. The ordinary methods of supplementing intelligence tests, and of evaluating the non-intellectual factors conditioning school success, have been discussed in previous chapters. In this chapter consideration will be given to methods of discovering special interests and abilities, some of which may be intellectual, others of a mechanical nature, others physical, and still others of a social nature.

II. Methods of Exploring Educational and Vocational Interests

The questionnaire method. This method consists in having children fill out blanks which call for information regarding age, school grade, subjects being pursued with preferences and reasons for same, father's occupation, extent of father's and mother's education, child's own occupational preferences, if any, child's educational plans, and similar data. This method has been severely criticised because of the unreliability of the data secured. Even in the fifth, sixth, seventh, eighth, and ninth grades the pupils are quite apt either to lack definite knowledge sufficient to answer the questions accurately, or to treat the whole matter as a joke and give fictitious answers. If, however, the limitations of the method are frankly recognized and proper allowance made for inaccuracy and deliberate misrepresentation, much worthwhile information can be secured by this means. The writer has found that high-school pupils record their vocational and educational plans with a considerable degree of reliability.[1] A fourth year follow-up of 272 cases of pupils who had either dropped out of high school to go to work, or had gone to work after graduation from high school, showed that 108 of them, or 40 per cent, were engaged in occupations of the same or higher rank than those mentioned in answer to the questionnaire four years earlier. In the case of the 290 who had been graduated from high school and were in higher institutions of learning, it was found that 235 of them, or 81 per cent, were following the same or higher educational plans than those mentioned by them while yet in high school.

In addition to data regarding the educational and vocational plans of pupils the questionnaire may be made to

[1] See author's Monograph, *op. cit.*, pp. 78–90, on persistence of vocational choices made by high-school pupils.

yield information as to special interests in school subjects and extra-curricular activities, as well as out-of-school hobbies and pursuits. There is enough of real value in the facts so gathered to make it worth while for the person responsible for their collection and compilation to make a careful study of the technique of "question-blank" making.[1] When the blanks have been filled out by the pupils, and such use made of the data for general purposes as seems desirable, the most essential items bearing on social status, educational and vocational plans, interests and aptitudes, etc., should be transferred to permanent record cards for future reference. Such records are, when faithfully kept, of great value to principals, teachers and counselors when engaged in the advisement of individual pupils.

The self-analysis method. This method is similar to the questionnaire method because it is usually based on a question-blank, which the subject fills out. It differs from the questionnaire method above described in that it usually calls for a considerable amount of introspection, illustrated by such questions as: "Are you a follower or a leader?" "Are you honest?" "Are you reliable?" "Are you ambitious?" or, "Can you see any indications of inherited tendency or ability in your life?" There is a natural tendency on the part of any individual to overestimate his own good qualities and underestimate his less desirable qualities.[2] Such items as neatness, reliability, coöperativeness, and social qualities cannot be judged entirely, therefore, on the statements of the individual concerned, but should be supplemented by reactions from parents, teachers and associates.

[1] Rugg, H. O. *Statistical Methods Applied to Education.* Houghton Mifflin Company, 1917. See pp. 40–54 on the question-blank method of collecting educational data.

[2] Knight, F. B., and Franzen, Raymond. "Pitfalls in Rating Schemes"; in *Journal of Educational Psychology*, vol. 13, pp. 204–13.

In addition to the unreliability of introspective judgments as to social and moral traits, there is the additional danger that those inclined to morbidity, or "in-grown" minds, will have that tendency magnified by too much exercise. On this account the questions asked should be designed to bring out specific items of behavior from which inferences may be drawn. Instead of asking "Do you enjoy reading good books?" to which nine out of ten individuals would reply, "Yes," ask the person to make a list of the books read within the past year. Questions which cannot be asked in a way that will elicit accounts of specific acts would better be left out, and the supplementary information as to their tastes and inclinations secured in other ways. Brewer says,[1] on this point: "A list of useful acts is as much better than a list of qualities as works are better than mere faith."

If self-analysis blanks can be freed from the objectionable elements which make the filling of them exercises in morbid self-examination, they can be made to contribute to the individual's powers of self-guidance, as well as to the counselor's fund of usable data regarding the individual advisee. The line of least resistance is to take some blank already in use and adopt it *in toto*. What should be done, in every instance, is to get all the help possible from the experience of others, and then develop a blank suited to the peculiar needs of the school or group where the same is to be employed. A guidance director who is not capable of making such adjustments in the light of the latest and best practice is not the person to be in charge of such an important task.

Observations by parents, teachers, and associates. As an offset to the overestimates or underestimates of a person's own interests and abilities, secured as a result of the self-

[1] Brewer, John M. *The Vocational Guidance Movement*, p. 168. The Macmillan Company, New York, 1918. Read in this connection also pages 169 and 170.

analysis and other blanks filled out by the person himself, there should be recorded the observations of others who know him intimately.

1. Parents, though naturally inclined to be biased, are able to give most valuable information if approached tactfully, and convinced that the information is to be used for the best interests of the child. If blanks are used, the best results are secured through a personal visit to the child's home by the counselor, who asks the questions and records the answers himself. This gives opportunity for discussion of doubtful points.

2. Teachers' estimates of special interests and abilities can be greatly refined by the use of rating scales, which cover the points under investigation.[1] The use of such scales tends to open the eyes of the teacher to the fact that a given child is more than a mere cog in the school machine. When attention is directed to the discovery of special interests and abilities, the person observed begins to emerge from the group — to become for the observer a distinct personality. The reflex of this situation is usually an increase of personal interest in her pupils on the part of the teacher.

3. Associates. Another angle on a child's special interests and abilities is to be had from the observations of associates in school and play. It is difficult to secure these in usable form, but if at all obtainable they are well worth while, because children display phases of their ability and their disposition to associates which are entirely unknown to their parents and teachers. If blanks are used they must be simple and direct, and must not contain questions relating to moral conduct, or the suspicion will be aroused that you are trying to get boys and girls to "tell" on one another. The best results are obtained where small groups rate each other in regard to easily distinguished interests and abilities, as a sort of game.

The interview method. As a means of getting at special interests and abilities, the interview between adviser and advisee occupies a central place. No amount of data collected, either in the form of general information blanks or self-analysis blanks, or as the result of mental, subject-matter, and vocational-aptitude tests, can remove the neces-

[1] Hughes, W. Hardin. "A Rating Scale for Individual Capacities, Attitudes and Interests"; in *Journal of Educational Method,* vol. 3, pp. 56-65.

sity for personal, first-hand knowledge by the counselor of the person to be counseled. It is on this account that no reputable guidance bureau will undertake to give counsel by mail.[1]

The danger, on the other hand, in the case of the personal interview is that a snap judgment will be reached solely on the ground of immediate impressions. Rich harvests are gleaned from the gullible every year by guidance fakirs who claim to be able to judge of vocational fitness by the length of the nose, the color of the eyes, the slant of the chin, the character of the hand life-line, and other facial or physical characteristics. But there are many items of vital interest which can be brought out in a personal interview which not only throw additional light upon the problems involved in the case, but which serve to establish the relationship of sympathy and mutual understanding between the parties concerned, and without which there can be no lasting good accomplished.

Preparation for the interview, on the part of the counselor, should consist in going over all the records in the case that are available. The questions to be asked should be based on the idea of clearing up doubtful points, and of supplementing information already at hand. Better results will be secured if prepared blanks, or at least definitely formulated questions, are employed. Careful note should be made of phases of behavior of the subject during the interview. The objective of the interview should be to improve the counselor's "total impression" of the person counseled. This objective can seldom be attained in one interview. It usually requires several interviews, between which additional objective data have been collected, to place the counselor in a position to give helpful advice. The ideal is, of course, to have the

[1] Brewer, J. M. *The Vocational Guidance Movement*, chap. II, pp. 28–29, regarding requests made to Boston Bureau for guidance by mail.

pupil under the observation of the counselor for a year or more, in order that guidance may be a continuous process and not a single act. Such a situation makes possible many informal conferences and interviews, each of which should throw some light on the special interests and aptitudes of the pupil concerned.

III. The Exploration of Special Abilities by Means of Tests

Prognostic tests for educational guidance. Schoolmen are interested in the possibility of applying tests which will disclose whether or not a pupil may be expected to succeed in a given subject. Kelley [1] found that "differences in abilities in English and arithmetic, evident in the elementary school, tend to persist and reveal themselves four years later as differences of the same sort in the high school." His discoveries were based on a follow-up of actual achievement in the subjects. The relationship between elementary ability in arithmetic and high-school ability in mathematics was revealed by the use of the regression equation, and other carefully applied statistical methods, which the average teacher or counselor is not capable of employing. We accordingly hope that in time tests may be devised which will indicate clearly who should and who should not be encouraged to take certain high-school subjects. The writer found a fair degree of correlation between score on "word relations test" and success in high-school English,[2] but the correlation (0.48) was but very little larger than the correlation between general intelligence and the average of all school marks (0.41).[3] It would not be safe, therefore, to as-

[1] Kelley, Truman Lee, *Educational Guidance*, pp. 75–76. Teachers College Contributions to Education, no. 71, New York, 1914.

[2] Proctor, W. M. Monograph, *Psychological Tests and Guidance of High-School Pupils*, revised edition, Table X, p. 40.

[3] *Ibid.*, Table IV, p. 21.

sume that by analyzing an ordinary group-test of intelligence one could predict probable success in specific high-school subjects.

To illustrate such a situation, the following case may be cited: A disabled veteran applied for admission to Stanford University for training as a high-school teacher of mathematics. He was given the Army Alpha test and made a high general score, but made a very poor score in the arithmetic test. The adviser in the district office ruled against "Teacher of Mathematics in High School" as an employment-objective for this man, on basis of the results of the test. The writer, as coördinator in direct charge of disabled veterans, advised a try-out, which was finally authorized, with the result that the man made a grade of "A" in Algebra and "B" in Geometry during his first quarter of study. He is now on the way to graduation, and to secure his credentials to teach mathematics in California high schools.

The reason for this failure of the different tests in an ordinary general intelligence scale to test specific abilities has been discovered by Professor Kelley, who says: [1]

> How many of these tests are different and how many the same under different names? Had you the tests themselves before you I doubt if you would say that any two were tests of the same capacity. They are different in name, form, content and one would think in type of demand. Time permitting we might compare each of the test functions with each of the others, but that not being possible let me pick out a number of the tests which definitely, as shown by the reactions of the 1257 children, do not test disparate functions, in spite of the fact that they are labeled differently by those who devised the test. These tests are: Written Directions; Opposites; Practical Judgment; Vocabulary; and Sentence Completion.

[1] Kelley, Truman Lee. "Distinctive Ability"; in *Proceedings of the Second Annual Conference on Research and Guidance*, pp. 59–62. State Printing Office, Sacramento, California, 1923. Quoted with permission of author, T. L. Kelley.

Dr. Kelley labels the common factor involved in these five tests of the fourteen in the National Intelligence Scale as "Swopy," or "S" for short, and then proceeds:

> I find that no less than 92 per cent of arithmetical reasoning is S; 90 per cent of information ability is S; 82 per cent of logical selection ability is S; and 72 per cent of analogy ability is S. There is greater difference between S and the other functions mentioned, for I find that 66 per cent of computation ability is S; 55 per cent of comparison ability is S; 41 per cent of series completion ability is S; 27 per cent of pictorial completion ability is S; and but 19 per cent of copying designs ability is S.
>
> We may conclude therefore that distinction between the abilities of a given individual may sometimes be quite readily made and at other times it cannot be made at all. As a practical matter we should attempt to distinguish between an individual's separate abilities only in fields experimentally found to be psychologically or functionally diverse.

If one examines almost any of the standardized tests of general intelligence in the light of Dr. Kelley's findings, it will readily appear that they all contain a very large amount of the ingredient "S." "S" may be said to correspond very closely to what Colvin and others have termed "Literary" or "Linguistic" ability. The tests which contained the smaller percentages of "S," may turn out to be those most closely related to manipulative or mechanical ability. If this proves to be the case, we will not be inclined, as at present, to accept a scale which is weighted from seventy-five to ninety per cent with linguistic elements as a fair determinant of general intelligence. We shall insist on a more even distribution of elements which test distinct abilities.

What prognostic tests must do. Prognostic tests, to be of any value, must be carefully designed to single out specific abilities and measure them. A few such have already been constructed with promising results. High school mathematics seems to be the most fruitful field at the pre-

sent time for the development of prognostic tests. Dr. Rogers [1] has standardized a Diagnostic Composite made up of six tests, which in an hour and a half of testing time gave correlations of from .60 to .80 with future mathematical achievement. The Rogers Diagnostic Composite was given to a class of twenty-five in the Plattsburg (N.Y.) High School,[2] eleven of whom were repeating the first half-year of first-year Algebra. The standing of the eleven repeaters on the Diagnostic Composite was as follows: Two had average mathematical ability, four had inferior, and five had very inferior mathematical ability. Such a test applied, at least after the end of the first half-year of Algebra, would have indicated that all but the two showing average mathematical ability should have been permitted to drop the subject and to devote their time to other subjects.

The development of prognostic tests for Latin, as well as achievement tests, will be a real contribution to the educational guidance equipment of our high-school counselors, since Latin and Algebra hold the unenviable distinction of being the educational Scylla and Charybdis upon which so many academic barques are wrecked. It is only in the subjects usually spoken of as variables or electives in the program of studies that prognostic tests can be utilized to any advantage. The constant subjects such as English, Political Science, etc., will be adequately covered by achievement tests, such as the Stanford, Illinois, Indiana, or Otis achievement tests.

Prognostic tests for vocational guidance. If it is true that special abilities that have to do with educational success

[1] Rogers, Agnes L. *Tests of Mathematical Ability and their Prognostic Value*, pp. 90–95 and 113–18; Teachers College Contributions to Education, no. 89, 1918.

[2] Morrison, Jayce C. *The Use of Standard Tests in the Plattsburg High School*, pp. 32–33. The University of the State of New York Press, Albany, 1923.

cannot be accurately predicted from the individual tests which go to make up a given Intelligence Scale, it is just as true that special vocational abilities cannot thus be forecast. Recent studies have brought out the fact that there are discernible differences in intelligence levels between those engaged in various occupations.[1] The middle fifty per cent of unskilled laborers made scores on the Army Alpha of from 21 to 63, while the middle fifty per cent of the professional group made scores of from 98 to 184.[2] These facts have general significance only. They indicate that persons of superior ability tend to gravitate toward the high-ranking occupations, and that those with below-average ability tend to gravitate toward low-ranking occupations. They do not, and cannot be made to tell us what a given individual will do, because an intelligence test applied to all the persons engaged in a given professional occupation would reveal the fact that the range of intelligence within that occupation is still very wide. A considerable percentage of professional workers would be found to have intelligence that would classify them mentally with the top twenty-five per cent of common laborers, while a number of the common laborers would be found to have intelligence which would classify them with the middle fifty per cent, or even the top twenty-five per cent, of professional workers.

It is probably true that a careful study of the careers of the professional workers whose mental-tests scores are found in the lower fifteen or twenty per cent of the distribution would show that there is a critical point [3] below which success is

[1] Yerkes, R. M. (editor). *Psychological Examining in the United States Army*, pp. 819–37. *Memoirs of the National Academy of Sciences*, vol. 15, Government Printing Office, 1921.

[2] Proctor, W. M. Monograph, *op. cit.*, pp. 64–74, especially Tables 14 (on page 67) and 15 (on page 69).

[3] Kitson, H. D. "Vocational Guidance and the Theory of Probability"; in *School Review*, vol. 28, pp. 143–50.

Cowdery, Karl M. "Measures of General Intelligence as Indices of

not likely to be attained. There are, however, so many exceptions to such a general tendency that it is necessary not only to know intelligence levels, but specific vocational abilities as well. The presence of a high degree of ability along a certain line, coupled with less than average intelligence, may indicate success for an individual in an occupation which ordinarily calls for a much higher degree of general intelligence than that person possesses.

Prognostic studies under way. This truth, now quite clearly recognized, has led to two outstanding research enterprises carried out under the auspices of the Carnegie Institute of Technology, and the Institute of Educational Research of Teachers College, Columbia University. The investigations which have been carried on at the Carnegie Institute of Technology have to do with the analysis of commercial occupations and aim at the development of achievement and prognostic tests along these lines.[1] Attention has also been given to the standardization of vocational guidance tests which will reveal potentialities for pursuing engineering occupations.[2] The preëngineering tests were applied to the entering students in thirty to forty engineering institutions in 1920. Careful follow-up of the subsequent success of these students with their preëngineering and engineering studies has shown a high degree of predictive value in the tests, as well as revealing their shortcomings for prognostic purposes.[3]

success in Trade Learning"; in *Journal of Applied Psychology*, vol. 6, pp. 311–30.

[1] Contributions to the Carnegie Institute series of studies have been made by Bingham, Scott, Mann, Charters, Thurstone, Stevenson, Miner, and Strong. Typical of these studies is the one by Charters, W. W., on *Secretarial Duties and Traits*, Service Bulletin no. 1, National Junior Personnel Service, Inc., 70 Fifth Avenue, New York.

[2] Thurstone, L. L. *Vocational Guidance Service, for those Contemplating Entering the Engineering Profession.* Department of Psychology, University of Chicago, Chicago, Ill.

[3] Thurstone, L. L. *Engineering Tests*, Covering Arithmetical Reasoning,

The investigation which the Institute of Educational Research of Teachers College is sponsoring has been made possible by a subvention from the Commonwealth Fund, and is under the immediate direction of Dr. Herbert A. Toops. The preliminary stages of the research are reported in a monograph[1] which outlines the problem and reports progress for the first year. The task undertaken is the development of tests that will "be of value in predicting fitness for various careers," and which can be given to fairly large groups of children by intelligent teachers, within a three-hour time limit and admitting of easy and accurate scoring. Three types of tests are being devised: (1) those which test ability to deal with ideas, and symbols for ideas; (2) those which test ability to deal with things and mechanisms; and (3) those which test ability to deal with clerical items and procedures. No attempt has been made as yet to test ability to deal with people — that is, social intelligence or ability.

Dr. Toops says of the preliminary work with the tests employed:[2]

> Our test for "ability with ideas" is satisfactory. It does correspond with success in school work and book-learning in general. A boy or girl who scores well in it is found to have done well in book-learning. It has the advantage over previous tests of ability with ideas of being far less subject to special practice or unfair coaching. It can be used helpfully along with any of these. The boys' test for "ability with things" seems as satisfactory as any that is likely to be devised with present knowledge. It measures a

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Technical Information, Algebra, Physics, Geometry, Estimating Test, Puzzles, Grammar, Mechanical Aptitudes I and II, and Psychological Tests.

[1] Toops, H. A. *Tests for Vocational Guidance of Children Thirteen to Sixteen*, p. 159. Teachers College Contributions to Education, no. 136, 1923.

[2] Toops, H. A. *Ibid.*, Introduction, pp. iv–v. Quoted with the permission of The Teachers College Bureau of Publications.

distinct, and probably an important, feature of human ability. The score obtained in it corresponds well with success in shop work in schools. The same is true for the girls' test of "ability with things." We have been unable to check either test against actual industrial success "on the job" or to ascertain how free they are from disturbing influences from special practice or coaching. We are confident, however, that any competent psychologist, or employment manager or vocational counselor would consider the scores attained in these tests a valuable part of a personnel record for boys and girls in the early teens.

The two tests of "ability with clerical items" have been the subject of extended study, but the results are not clear. The higher-level test is indicative (when its elements are properly weighted) of ability to succeed in training for stenography, typewriting, and bookkeeping in business schools. In children from thirteen to fifteen it seems to be very largely a test of general intelligence. The lower-level clerical test measures powers that are more distinct from general intelligence. It indicates success among actual office workers about as closely as the higher-level test.

The above described tests have been given to a thousand boys and a thousand girls of the graduating elementary-school grade, whose subsequent success in school and industry will be carefully followed. There is good reason to expect more in the form of tangible results from this investigation than from any that has thus far been undertaken.

Tests for vocational selection.[1] The task of devising vocational guidance tests that will have validity in predicting what success a given individual is apt to have, if he engages in a particular occupation, is much more difficult than the task of devising tests that will select the persons most likely to succeed in the performance of a given segment of an occupation. The employment psychologist has generally but

[1] Link, H. C. *Employment Psychology.* The Macmillan Company, New York, 1921. A very readable discussion of the application of scientific methods to the selection, training and rating of employees.

one branch of industry to deal with. His field is limited to the range of occupations necessary for the successful conduct of that industrial enterprise alone. Since his function is a selective one, he is free to set his test standards high enough to bar out all questionable cases, and thus to make for himself a high efficiency score.[1] He is not concerned with the fate of the rejected applicants for jobs, but he is concerned with the percentage attaining success among those whom he had selected with his tests. He alters the tests or devises new ones in the light of the practical results attained, and is thus able to secure relatively effective measures for the purposes which he has in mind.

The vocational counselor, on the other hand, must limit the objectives of his testing to abilities which have significance, not so much for specific occupations, as for rather broad occupational fields. Three such broad fields are suggested in the researches of Dr. Toops mentioned above; that is, ability to deal with ideas and symbols for ideas, ability to deal with mechanical elements, and ability with clerical items. Social ability, another important field, will probably have to be judged from observation of the individual in actual social situations.

Use to be made of special-abilities tests. In discussing the different varieties of tests for special abilities, it has not been with the idea of intimating that such abilities can be so accurately charted as to make of counseling an exact science. It will never be possible simply on the basis of tests, no matter how skillfully devised, to guide a person inerrantly into just the exact occupation he should follow. The results of tests, such as those now being perfected, should nevertheless add valuable data to the personnel cards of the individuals tested. These data will aid the counselor in his

[1] Watts, F. "The Construction of Tests for the Discovery of Vocational Fitness"; in *Journal of Applied Psychology*, vol. 5, pp. 240–51.

efforts to direct the pupil toward the general field of employment where he is most apt to succeed.

The factors which determine specific occupational choices are more often than not beyond the scope of any test that could possibly be conceived or administered. It is the duty of the counselor to know all that tests, school records, rating scales, and other available sources of information can give him in regard to the interests and abilities of the children under his guidance. He should then proceed to secure opportunities for each child to try out, in school subject, shop, or part-time employment, the special abilities which he is presumed to have in most significant degree. If the test results are verified by the practical try-out, more advanced experience in the same field should be undertaken, and the pupil encouraged to acquire all available information relating to that occupational field. In this way school guidance culminates, as it should, in self-guidance, and the ultimate choice is the choice of the pupil himself on the basis of his own knowledge, information, and experience.

QUESTIONS AND PROBLEMS

1. Think of the most efficient lawyer you know, and also of the least efficient. Is the only difference between them a difference in native ability?
2. A young man, age twenty-eight, previous occupation interior decorator, Army Alpha score 79, education eighth grade only, excellent moral character, pleasing personality, and great persistence, wants to enter a university to begin preparation for the legal profession. Would you admit him? What are his chances of completing college and law school and being admitted to the bar?
3. What cautions should be observed in employing the questionnaire method of discovering special interests and abilities in children?
4. Is there any scientific evidence to support the contention that the tendency of a person to overrate or underrate his own qualities depends upon his Will-Temperament pattern? (Consult articles by Dr. June Downey.)
5. Is the Army Alpha or the National Group Test as satisfactory, for the

purpose of diagnosing special interests and abilities, as the Thurstone or the Toops Vocational Guidance Tests?

6. Examine any three standardized group tests of intelligence in the light of Dr. Kelley's findings, quoted in this chapter and estimate the extent to which these tests call for "Linguistic Ability" as a prerequisite for success.
7. What do you understand by Social Intelligence? Is it measurable? Should it be taken into account in evaluating general intelligence?
8. Is there such a thing as mechanical intelligence? Are the available tests satisfactory? Should it be taken into account in evaluating general intelligence?
9. Would it be possible to devise a composite, made up of the Linguistic Quotient, the Social Quotient, and the Mechanical Quotient, as the basis for predicting the P.S.V. (Probable Social Value) of a given child?
10. Make a list of special abilities which to your mind can be best discovered by the personal interview with pupil and parents; also make a list of those abilities which are most apt to be discovered by the use of prognostic tests.

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CHAPTER V

ORGANIZATION OF THE PROGRAM OF STUDIES FOR GUIDANCE

I. Educational Objectives Stated

Fields of activity to be provided for. If we accept as a working definition of education that it is "preparation for complete living," our first task is to discover the fields of activity in which as children, youths, and adults we are most apt to find ourselves engaged. There are a number of different statements relative to these fields of activity, a few of which we shall mention, and in the order of the number of fields suggested:

1. Inglis [1] mentions three fields; the social-civic, the economic-vocational, and the individualistic-avocational.

2. Bonser [2] suggests four main lines of activity; maintaining health and preserving life, practical activities and the means of their pursuit, civic and other regulative activities, and recreational activities.

3. Bobbitt [3] takes account of six fields; training for occupational efficiency, training for parenthood, training for citizenship, training for physical efficiency, training for leisure occupations, and training for social intercommunication.

4. Chapman and Counts [4] give six major interests that

[1] Inglis, A. *Principles of Secondary Education*, chap. x, pp. 387 ff. Houghton Mifflin Company, Boston, 1918.

[2] Bonser, F. G. *The Elementary-School Curriculum*, chap. III, pp. 43 ff. The Macmillan Company, New York, 1920.

[3] Bobbitt, Franklin. *The Curriculum*, chap. VI, pp. 41 ff. Houghton Mifflin Company, Boston.

[4] Chapman, J. C., and Counts, G. S. *Principles of Education*. Houghton Mifflin Company, Boston, 1924.

should be provided for; health, family life, economic adjustment, civic life, recreation, and religion.

5. The Commission on the Reorganization of Secondary Education [1] names seven fields of activity; health, command of fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure, and ethical character.

There are no fundamental differences in the points of view of the authorities cited above. Inglis was discussing primarily the aims of secondary education, and he assumed the command of fundamental processes. Under social-civic activities he would include citizenship, home-membership and ethical character. Likewise Bobbitt, Bonser, and Chapman and Counts discuss all of the fields of activity mentioned by the Commission on Reorganization of Secondary Education, but do not employ the same number of subdivisions.

The genesis of present-day educational objectives. The tendency to state the objectives of education in terms of the activities in which, as children and as adults we all engage, is the result of the shift from "faculty" psychology to the psychology of "specific abilities," and from subject-matter to children as the aim and purpose of education. Curriculum-making, when faculty psychology held sway, was relatively simple. All that it was necessary to do was to discover the faculties of the mind which should be cultivated, and to determine which subjects would best perform the disciplinary function of developing these faculties. The subjects capable of performing this function were few in number, and could all be definitely prescribed. Simplicity, directness, and thoroughness, could thus be attained. The mental faculties,

[1] Report of the Commission on the Reorganization of Secondary Education of the National Education Association and United States Bureau of Education, Bulletin 35 (1918): *Cardinal Principles of Secondary Education.*

once disciplined by the mastery of the prescribed curriculum, could be directed to the mastery of any field of activity.

The psychology of specific abilities, on the other hand, teaches us that mental ability is made up of "specific traits" and not of "general faculties"; that mental development is continuous and gradual; that the stages of this development can be quantitatively measured in terms of behavior-reactions; that things, objects, ideals, etc., have no meaning to a particular individual other than as he experiences them; and that changes in traits are more quickly and effectively accomplished by direct than by indirect means. This new psychology has led to a new philosophy of curriculum making, which aims directly at the cultivation of those habits and attitudes which it seems desirable for all citizens of a democracy to possess. This point of view is admirably expressed by Bobbitt:[1]

> The central theory is simple. Human life, however varied, consists in the performance of specific activities. Education that prepares for life is one that prepares definitely and adequately for these specific activities. However numerous and diverse they may be for any social class, they can be discovered. This requires only that one go out into the world of affairs and discover the particulars of which these affairs consist. These will show the abilities, attitudes and habits, appreciations and forms of knowledge that men need. These will be the objectives of the curriculum. They will be numerous, definite and particularized. The curriculum will then be that series of experiences which children and youth must have by way of attaining those objectives. These will be discovered by analytic survey. The curriculum-discoverer will first be an analyst of human nature and human affairs. His task is not at all concerned with "the studies," — later he will draw up appropriate studies as *means*, but he will not analyze the tools to be used in a piece of work as a mode of discovering the objectives of that work. His first task, rather, in ascertaining the education appropriate for

[1] Bobbitt, Franklin. *The Curriculum*, pp. 42, 43. Houghton Mifflin Company, Boston.

any special class, is to discover the total range of habits, skills, abilities, forms of thought, valuations, ambitions, etc., that its members need for the effective performance of their vocational labors; likewise the total range needed for their civic activities; their health activities; their recreations; their language; their parental, religious and general social activities. This program of analysis will be no narrow one. It will be wide as life itself. As it thus finds all the things that make up the mosaic of full-formed human life, it discovers the full range of educational objectives.

It will not be necessary for the public schools to make provision for all of the training which this analysis of life activities will reveal as essential to a complete education. The home, the church, and the associations of the child will furnish educative experiences in nearly all the fields of activity mentioned. It is, however, the task of the school to discover to what extent other agencies meet the demands and itself to supplement where they fail, and also to make sure that the ultimate objectives are, if possible, attained by all.

Derivation of courses of study in particular subjects. Each of the fundamental life activities has a body of knowledge and a set of skills and attitudes, peculiar to itself. These are to be discovered in each instance by a careful analysis [1] of the body of knowledge, skills, attitudes, etc., necessary to meet the demands in a given field of activity. The next step is to determine that part of the necessary knowledge, skill, etc., which may be gained in an incidental way in the ordinary out-of-school experiences of life, and that part which can best be organized for purposes of in-school training. When, as a result of such analysis, the phases of training best adapted for in-school presentation have been discovered, an attempt should be made to set up a series of pupil activities which will result in the accomplishment of

[1] Charters, W. W. "Activity Analysis and Curriculum Construction"; in *Journal of Educational Research*, vol. 5, pp. 357 ff.

the aims of the course. Some of these activities will be in the nature of first-hand experiences — that is, learning the "what" and the "how" and the "why" of things by actual doing. The elements belonging to a given field of human endeavor, and which can best be imparted through in-school exercises and experiences, may be said, when discovered, arranged, and organized to constitute the course of study in that field. The emphasis upon analysis of the situation in a particular field does not necessarily imply that what has already been done by way of discovery and organization in that field should be thrown aside as of no value. What it does mean is that courses of study should not be thought of as fixed entities, to be handed down from one generation of teachers to another unchanged. Rather should they be thought of as living organisms, subject to growth and change and of adaptation to new uses, and that the best means of keeping them alive and vital is to subject their content and organization frequently to careful activity analysis.

According to Charters,[1] activity-analysis completely carried out will result in the discovery for each subject of: (*a*) a set of ideals essential to that subject, such as ease, speed, and comprehension, in the case of reading; (*b*) an activity content — that is, the activities by which the subject is to be mastered, such as reading, writing, spelling, etc.; (*c*) of a factual content — words of the vocabulary, in the case of writing, facts and principles in the case of science, etc.; and (*d*) methods, the educational principles employed in establishing the ideals, supervising the necessary activities, and ensuring mastery of the factual content of the subject.

An ability is defined by Charters as "an activity carried on according to accepted ideals." Thus, an "ability to read with proper ease, speed, and comprehension" consists of an

[1] Charters, W. W. "The Los Angeles High-School Curriculum"; in *School Review*, vol. 31, pp. 95–108.

activity expressed by "to read," and of three ideals "ease, speed, and comprehension." Likewise, characteristics are defined as "ideals which have been attained." "That is to say, a man who possesses the characteristic of honesty pursues it as an ideal, and one who strives for the ideal of honesty develops it in greater or less degree as a quality or characteristic."

Dr. Charters's point is well taken that along with what he calls the "activity content" and the "factual content" of subjects, it is essential that the "ideals" as to quality of performance should be set up, and also that methods of transmuting these ideals into acquired "characteristics" should be devised. For a citizen in a democracy it is not enough just to know how to read, but he should be able to read with "ease, speed, and comprehension." Also, since what a citizen reads influences his thinking on questions that relate to the public welfare, we are concerned that he should come to have not only ideals pertaining to "how to read" but also pertaining to "what to read." Activity-analysis, rightly conceived, helps us to attain these ends.

Relation of activity-analysis in curriculum building to the problems of guidance. The process of building-up or changing a curriculum through the medium of activity-analyses in the various fields of human interest and endeavor makes possible the organization of the entire program of studies in a school system for purposes of guidance. The processes available for the exploration of pupil interests and abilities, described in preceding chapters, are of little value unless adjustments and adaptations can be accomplished through suitable changes in courses of study and curricula. The two movements, that for measurements and that for adjustments, must go forward in unison.

Just as in the measurements movement little progress was made until the classroom teacher was enlisted in the

giving, scoring, and interpretation of tests, so, in the movement for the reconstruction of the curriculum, must the classroom teacher be given a part in the making of activity-analyses of the subjects in which she is interested. Such participation will enable the classroom teacher to coöperate intelligently with supervisors and administrators in the adaptation of courses of study and curricula to the interests, aptitudes, and learning abilities of their pupils. In this connection it is significant to note that in the cities where curriculum making has been undertaken as a coöperative enterprise among administrators, supervisors, and teachers, the exploration of pupil-abilities by means of mental and other tests has also made substantial progress.[1] Hence it may be seen that there is a close and vital connection between the problems of guidance and the methods and results of curriculum construction.

II. Guidance Possibilities in the Elementary Curriculum

A six-year elementary period assumed. In all our discussion of elementary education and its relation to guidance we shall assume that a six-year period is sufficient for the accomplishment of the aims and functions of that phase of education. In making this assumption we are fully aware that a relatively small percentage of our public schools are as yet organized on the basis of six years for elementary education. Since, however, the most progressive school systems have already adopted the plan on what appears to be a sound basis of educational policy, and since there is practical unanimity among leading educators as to the de-

[1] In the cities of Berkeley, Oakland, and Los Angeles, California, and in Providence, Rhode Island, St. Louis, Missouri, and many other cities, reconstructed programs of study have been worked out under the supervision of the Bureau of Research and Guidance.

sirability of the 6–6 or the 6–3–3 plans of administrative organization for our public schools, it is undoubtedly a reasonable assumption that future development lies in this direction. A still further reason for assuming a six-year elementary period is that it fits in best with a working plan for effective educational and vocational guidance.

The aims and functions of elementary education. Discussing the purposes of elementary education, Bonser[1] says:

> It is the purpose of the elementary school to provide experience in meeting the common needs of all, regardless of sex, vocation, or social status. Its content is made up of those activities in which every one must participate with a like degree of knowledge and skill and with like attitudes and appreciations, in order that there may be a unified, efficient and stable social life. Its activities, values, and ideals may be regarded as the common denominator of life for the whole nation. It deals with children during a period in their lives when their general tendencies to action, thought, and feeling are most nearly alike and most susceptible to a common appeal. It deals with the social purposes which are the same for all. It applies itself to the development of that knowledge, of those habits and attitudes, and of those appreciations which enable people to understand each other, to share in the common life, to coöperate in realizing common purposes. . . . To develop as much efficiency and satisfaction as possible in meeting all of these common needs before the period is reached when different needs become so prominent that differentiated school work is required to meet them, is the work of the elementary school.

It has been more or less customary to state that the function of elementary education was the mastery of the tool subjects, by which was meant the subjects basic to further education in organized schools. From this viewpoint all subjects offered outside the restricted field are looked upon as "fads and frills" upon which public funds should not be

[1] Bonser, F. G. *The Elementary School Curriculum*, pp. 61, 62. Reprinted by permission of The Macmillan Company, publishers.

expended, at least below the high school. But if the true objectives of education are to be sought in the life-activities in which all must engage, elementary education cannot confine itself to the so-called "tool subjects," but must provide training in all the fields of activity where *in-school* training is necessary to supplement the incidental experiences of *out-of-school* life. In so far as training in health, command of fundamental processes, worthy home-membership, citizenship, worthy use of leisure time, vocational aptitudes, and ethical character have a common basis and require simultaneous treatment, they are entitled to a place in the elementary curriculum. As soon as the period is reached "when different needs become so prominent that differentiated school work is required to meet them," [1] the elementary period is closed and the secondary period is entered upon.

Rate of progress the keynote of guidance in the elementary grades. When we say that the content of the elementary curriculum is "made up of those activities in which everyone must participate with a like degree of knowledge and skill and with like attitudes and appreciations" [2] we do not mean to imply that each child will bring to the acquisition of these desirable common knowledges, skills, attitudes, and appreciations the same degree of learning capacity that every other child brings. But our analysis will assist us in determining the minimum attainments in these different fields which every citizen should have in order to "carry on" efficiently in a democratic state. Such analysis cannot, however, tell us how long it is going to take for a given individual to reach that minimum goal of attainment. If we assume that children of average learning capacity should be able to master the minimum essentials of the elementary

[1] Bonser, F. G. *The Elementary School Curriculum*, pp. 61, 62.
[2] Bonser, F. G. *Op. cit.*

curriculum in six years, we know from experience that some children will be capable of mastering the same in three years, and that others will require nine or ten years.

Guidance activities, therefore, in the elementary grades, will have to do primarily with exploring the interests, aptitudes, and abilities of children, and with determining the rate of progress which is most natural to each child in the mastery of the elementary curriculum. Since all of the subjects of the elementary curriculum will have been selected on account of the contribution which they are supposed to make to the fundamental preparation for complete living, there will be no elective subjects — all will be prescribed. The question of rate of progress, though, and also the question as to the quantity and quality of work to be reasonably expected will remain as a problem to be solved.

Those responsible for guidance will be expected to discover, by all available means, whether a given child of very superior ability is socially and physically mature enough to be encouraged to complete the elementary grades in four years, or whether it would be better for that child to take five or six years to do the work, and at the same time engage in activities calculated greatly to enrich the ordinary elementary experiences. In the case of another child the problem will be so to distribute the units of accomplishment that minimum essentials may be mastered in seven or eight years, without failures and repetitions. Some children will, of course, be found who cannot master the minimum essentials in symbol-employing subjects at all, but who can learn to master simple mechanical or manipulative processes. These will be guided into doing the things which they can do, and not be kept indefinitely at tasks entirely beyond the range of their abilities.

Each child will thus be helped to make progress toward reaching the desirable goals of elementary training at a rate

suited to his peculiar needs and capacities, and in a manner that will train him in the habit of success and not of failure. While it is not to be expected that anything in the nature of specialized vocational training will be given in the elementary grades, opportunity should be afforded for gaining information about many different vocations.[1] The cumulative record card will make possible the preservation of significant observations of teachers and counselors in respect to character traits, interests, aptitudes, and special abilities. Equipped with a basic training in all the significant fields of life activity, and having accomplished the elementary phases of training in the fundamental "tool subjects," he is prepared to enter the field of secondary education.

III. Guidance Possibilities in the Junior High School Curriculum

Reasons for reorganization on 6-6, or 6-3-3 plans. The chief indictment against the 8–4 plan lies in the abrupt nature of the gap that it leaves between elementary and secondary education. This gap exists in character of subjects taught, in methods of teaching, in social relations, in methods of study, and in discipline. It is responsible for a heavy elimination between the eighth and ninth grades, and for a very heavy mortality — an average of thirty per cent for the country at large — in the ninth grade.

Beginning with the report of the Committee of Ten, in 1893, and reaffirmed from time to time since that date, there has been an increasing emphasis on the need for a reorganization of education which should recognize the defects in the 8–4 plan and provide suitable remedies. Out of this reorganization movement has emerged a new institution, the junior high school.

[1] McCracken, T. C., and Lamb, H. E. *Vocational Information for the Elementary Grades*, pp. 87–195. Houghton Mifflin Company, 1923.

Character and aims of the junior high school. This new educational unit is thus described by Davis:[1]

The junior high school may be defined as a school unit developed in the United States within recent years and designed to furnish to all pupils, between the ages of twelve and fifteen years, approximate, (1) continued common education on high elementary levels, and (2), the beginnings of a differentiated or secondary education adapted to each pupil's individual needs. By providing a program of studies extensive in scope and by making use of methods of instruction and training that are grounded in the contemporary interests and concrete experiences of boys and girls of the early adolescent period, the new school seeks to mediate between strictly elementary school work and methods and the more specialized contents and processes of the senior high school and the work-a-day world. . . . To accomplish this program, the new unit most frequently makes use of grades seven, eight, and nine in the school system.

The junior high school is thus described, for purposes of inspection and accrediting, by the North Central Association of Colleges and Secondary Schools:[2]

A junior high school is a school in which the seventh, eighth, and ninth grades are segregated in a building (or portion of a building) by themselves, possess an organization and administration of their own that is distinct from the grades above and the grades below, and are taught by a separate corps of teachers. Such schools, to fall within the classification of junior high schools, must likewise be characterized by the following:

1. A program of studies decidedly greater in scope and richness of content than that of the traditional elementary school.
2. Some pupil choice of studies, selected under supervision.
3. Departmental teaching.
4. Promotion by subject.
5. Provision for testing out individual aptitudes in academic, prevocational, and vocational work.

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[1] Davis, C. O. *Junior High School Education*, pp. 8, 9. World Book Company, Yonkers-on-Hudson, New York. Copyright, 1924.

[2] Bulletin, Commission on Secondary Schools, North Central Association of Colleges and Secondary Schools, 1919; 4 pp.

6. Some recognition of the peculiar needs of the retarded pupil of adolescent age, as well as special consideration of the supernormal.
7. Some recognition of the plan of supervised study.

It is estimated that there are now between eighteen hundred and two thousand schools representing some phase of this movement for the reorganization of education. About fifty per cent of the new institutions embrace only the seventh and eighth elementary grades, and are commonly called Intermediate Schools. Thirty-three per cent of them embrace the seventh, eighth and ninth grades, and may be said to come under the North Central Association definition of a junior high school. The remaining schools represent various combinations, such as, 6, 7, and 8; 8 and 9; 8, only; 9, only; 7, 8, 9, and 10; and 7, 8, 9, 10, 11, and 12, or the six-year high school.

Functions of the junior high school. The functions of the junior high school which succeeds in living up to the true aims and purposes appropriate to this new unit of the school system, will be:

1. Adjustive. This involves making use of the information gained through mental testing, subject-matter testing, etc., in adjusting the content and methods of teaching to the abilities of the children. This will result in the breaking of the "lock-step," in promotion by subjects, and in the reduction of elimination. It also involves better adjustment in the character of the subjects studied — the removal of "padding" from the common integrating subjects continued in the junior high school, and the introduction of subjects formerly reserved for the senior high school. Thus will the gap between secondary and elementary education be bridged.

2. Exploratory. Not only will the results of various tests be utilized to aid in adjustment of pupil and program, but experiences will be provided for the actual trying-out of the abilities discovered. Such try-outs will be afforded both in the fundamental processes underlying the various occupational fields, and in recreational and avocational activities.

3. Preparatory. Adjustment and exploration imply preparation for the work immediately ahead. In the case of those who will complete their in-school education with the junior high school, forms of training, basic to the occupational field indicated by the try-out experiences, will be provided. In the case of those who will continue their formal education in the senior high school, training along lines which may be followed with a higher degree of specialization in the next educational unit will be provided.

4. Integrating. In carrying out this function the junior high school will provide for a continuance of training in those common fields of experience which are necessary to the preservation of health, social intercommunication, home membership, and ethical character.

Organization of the program of studies to facilitate guidance. In the junior high-school program of studies those subjects which tend to promote the integrating function will be known as constants, and will be required of all. Those subjects which are most closely allied to the carrying-out of the exploratory and preparatory functions will appear as electives, or variables; when added to the constants these will result in the construction of differentiated curricula. The adjustive function is carried out when pupils are guided in the discovery of their life interests and ambitions, and in the selection of the elective studies most appropriate to their needs and abilities.

Whereas the keynote of guidance in the elementary grades was the discovery of the rate at which progress in the common integrating subjects should be made, in the junior high school guidance begins to be concerned with the discovery of and preparation for life careers. Since many will have reached the sixteenth year by the time of completing the junior high-school course, and will, either by reason of lack of mental capacity, inclination, or economic necessity feel constrained to leave school at this point, educational and vocational guidance now becomes a matter of prime im-

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portance. Means for imparting detailed information about vocations should be devised. Short-unit try-out courses, worth while in themselves and having at least vocational guidance value, should be provided. Above all guidance should be so directed as to motivate the individual's curriculum in order that each child may be encouraged to continue in school as long as possible. The smaller the number of sixteen-year-old boys and girls who leave school to go to work, the smaller will be the army of untrained youth filling the blind-alley jobs in commerce and industry. Suitable organization of the junior high-school program of studies into differentiated curricula, with a view to the complete carrying-out of its exploratory, adjustive, and preparatory functions, will go far toward demobilizing the formidable army of child laborers, which, according to the 1920 United States Census,[1] numbers more than one million boys and girls between the ages of ten and fifteen years, inclusive. If proper training and guidance facilities are provided, every one of these children would better be in school than in the occupations where they are now employed.

IV. Organization of the High-School Program for Guidance

Academic tradition in high-school curriculum-making. While there are at the present time two and one quarter million pupils in our seventeen thousand high schools, this number constitutes only about twenty-five per cent of the total number of adolescents thirteen to eighteen years of age, inclusive. One explanation of the relatively small number of youths who continue their education in the high

[1] United States Census Bureau Reports for 1920 give the number of boys and girls, ten to fifteen years of age, inclusive, engaged in gainful occupations, as 1,060,000. For particulars see National Education Association, *Research Bulletin*, vol. 1, no. 4, 1923, 277 pp.

school, is the character of the training, which is predominantly academic. At a time when youth is beginning to think seriously in terms of a life career, our rural and village high schools, which accommodate about forty-five per cent of the high-school population, have nothing but a college preparatory course to offer. Since only about twenty per cent of the high-school population will ever enter college, it means that the other eighty per cent find very little in the prevailing curriculum which pertains to their life needs and plans. The dawning recognition of this fact has, in recent years, brought about a marked change in the philosophy of curriculum-making for secondary schools. The larger high schools have been quickest to respond, but the smaller high schools are rapidly falling into line.

High-school functions as conceived in reorganization plans. We have seen that in the elementary grades the integrating subjects and activities claim attention; that in the junior high school there is the beginning of differentiation, and preparation for the work immediately ahead. In the senior high school integrating subjects will be continued and required of all students. There will also be preparation for the work ahead, whether in college or in occupations. If the work of the junior high school has been well done there will not be so great a need for exploration, but there will still be a sufficient number who have not found themselves to require that there should be a continuation of try-out courses, coupled with flexibility to permit of needed changes of program. Curricula, representing the possibilities of training in the general fields of agriculture, industry, trade, commerce, and along pre-professional lines, will be set up. For the benefit of adolescents who need to go to work upon completion of the junior high school, continuation and part-time courses will also be provided in the senior high school.

Guidance in connection with the high-school curriculum. If guidance in the elementary school takes the form of educational adjustment, and in the junior high-school exploration and orientation receive the greatest amount of attention, in the senior high-school guidance takes the form of assisting the pupil to select the curriculum which will give him the best specific training for his chosen life career. If he has not yet made up his mind regarding a life career upon entering the senior high school, guidance will take the form of supplying further information [1] about the careers in which he is interested, and it will also point him to the line of preparation necessary to be followed when final choice is made. Through its extra-curriculum activities,[2] through its work in music, art, literature, and physical education, the high school must also seek to provide for the recreational and avocational interests of life.

The high school has not carried out its true function when it is content merely to offer instruction in a number of different fields traditionally associated with secondary education. The subjects offered may be ever so well taught, and high standards of scholarship may be strictly maintained, but if it does not offer to its students careful guidance in the choice of subjects, in out-of-school activities, and also in avocational and vocational fields of interest, it is falling short of its social, civic, and educational obligation. Proper guidance means conservation of human values, and as a nation we can least afford to permit these values to go to waste.

[1] For further discussion of vocational information in the elementary grades and high school, see Chapters XII and XIII, *infra*.

[2] For further discussion of the guidance values of extra-curricular activities, see Chapters VIII, IX, and X.

V. How Curriculum Organization for Guidance is to be Accomplished

In the cities of 25,000 or over. Cities of 25,000 inhabitants or over are quite likely now to have bureaus of research and guidance. Where there is such a bureau, leadership in the reorganization movement generally is assigned to its director. The following procedure has marked the effort to secure a reorganization of the school system and the program of studies in a number of American cities:

1. A survey carried out by the bureau of research and guidance. This survey should cover: (*a*) school population — disclosing extent of retardation, mental deficiency, and acceleration; (*b*) school plant — showing state of building, grounds, and equipment; (*c*) community resources — relation of expenditures for school purposes to general community enterprises; (*d*) character of community as to industries, resources, etc.; (*e*) school program, and its adaptation to the needs of children and community; (*f*) teaching staff — as to training, efficiency, salaries, and attitude toward their work.[1]
2. A study of survey-results by superintendent, teachers, and patrons. Several months should be spent in teachers' meetings and parent-teacher association meetings discussing the significant findings of the survey. Particularly should the causes for elimination and other phases of lack of adjustment between the school and the child receive consideration. The primary objective of this preliminary study of the survey results should be to bring all of the interested parties to see the need for changes that would mean a betterment of the school situation.
3. The actual work of curriculum construction should be done by the teachers and their supervisors, working coöperatively. The courses of study for the elementary grades should be worked out by committees, made up of all of the teachers of a given grade. They should not only organize a suitable con-

[1] Sears, J. B. *The School Survey*, chap. I. Houghton Mifflin Company, Boston, 1925.

tent for their own particular grades, but they should suggest appropriate methods and projects as well. In the high school the committees will consist of all the Latin teachers working on the course of study in Latin, and so on for each subject. There should also be a reviewing committee to articulate the proposed courses of study, to prevent overlapping, and to eliminate inconsistencies. This committee should be made up of the superintendent, the director of guidance and research, supervisors representing the elementary-school subjects, and the high-school principal and high-school teachers representing the various high-school subjects.

4. The courses of study, when finally adopted by the board of education, should be mimeographed and furnished to the teachers as a basis for their teaching, and there should be careful supervision to see that the teachers understand and undertake to carry out both the form and the spirit of the new program. Suggestions for alteration or improvement, however, should be invited and seriously considered, with a view to developing the idea of a program of study as being a growing and adaptable plan of procedure, and not an unyielding strait-jacket.

In small cities, villages, and rural-district consolidated schools. In the smaller communities the initiative is ordinarily taken by the superintendent of schools, or by the high-school principal in union or consolidated high-school districts. The need for reorganization is revealed when the administrator attempts to carry out any of the essential features of a guidance program. Problem cases arise, in the handling of individual pupils, which reveal the inadequacy of the existing program of study or the school organization to properly provide for such emergencies. When the desire for reorganization arises from such a distinctly felt need, there is a greater likelihood that the outcome of the movement will be a real gain in the adaptability of the program of studies to the capacities and desires of the pupils.

The preliminary survey should, if possible, be made by some outside agency. Faculty members of teachers' col-

leges, or school of education representatives of universities, should be invited to make the survey, or to give their expert supervision to a "self-survey." The method of working out the reorganized courses of study will be similar to that suggested for the larger cities, except that the teachers of the elementary schools will be grouped into three committees representing grades 1, 2, and 3; 4, 5, and 6; and 7 and 8. The high-school teachers will work in sub-committees representing groups of studies, such as, language group, social science group, mathematics group, etc. Reviewing committees will work all the material gathered into a well-articulated program of study with appropriate curricula.

Advantages of the coöperative method. The advantage of working out a new program of study on the coöperative basis is that the rank and file of teachers learn, by participating in the enterprise, the whys and wherefores of the suggested changes. On this account they have a personal interest in giving the new program a fair trial, which they might not have at all if the program were worked out by experts and imposed upon them from without. Such a method of procedure also gives the superintendent, principal, or director of guidance and research the chance to emphasize the "child-centric" as opposed to the "subject-centric" idea in education. The teachers come to be better able to understand the need for a thorough exploration of pupil abilities and the adjustment of school tasks to the mental, social, and physical endowment of the pupils under their tutelage. The procedure also tends to "humanize" educational research by making the teacher a partner in the enterprise, and by helping her to see the application of tests and measurements to her own classroom problems.

QUESTIONS AND PROBLEMS

1. Compare the objectives of education, as stated by Inglis, Bonser, Bobbitt, Chapman and Counts, and the Commission on Reorganization of Secondary Education. What are the fundamental differences between the aims suggested?
2. In applying Bobbitt's theory of analysis to the various fields of life activity, how do you determine that portion of each field which can best be undertaken in the schools?
3. What addition does W. W. Charters make to the Bobbitt theory of activity-analysis?
4. What do we mean when we say that the keynote of guidance in the elementary grades is adjustment of rate of progress to pupil abilities?
5. What size of school district is most apt to cling to the 8–4 plan of organization? Is there any difference in the sizes of districts which tend to adopt the 6–2–4 plan, rather than the 6–3–3 plan?
6. What significance is there for guidance, in the junior high school, in the fact that 23 States now fix the school-leaving age at 16 years?
7. In what size of high schools is the academic type of program of studies most apt to prevail? Why?
8. If 75 per cent of those whose I.Q.'s are below 90 drop out of high school to go to work, during the first two high-school years, what can the high school do for them which will be of greatest benefit while they do remain in school?
9. Is there need for a continuance of the exploratory function in the senior high school? If so, how can the exploration best be carried out?
10. What can the high school do to make smaller the percentage of elimination from the 9th grade (first high-school year)?

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CHAPTER VI

GUIDANCE THROUGH PROVISIONS MADE FOR INDIVIDUAL DIFFERENCES

I. Ability Grouping

Reasons for ability grouping. The reasons for ability groupings arise out of the facts of individual differences in learning capacity, interests, attitudes, and dispositions.[1] If elementary classes of thirty-five to forty pupils, or high-school classes of twenty to thirty pupils, of mixed ability, are rated according to ability to accomplish a given school task, it is found that the brightest are capable of mastering from four to six times as much as the slowest pupils.[2] Miller,[3] in giving an analogy test, found that "the best pupil could perceive a relation and speak the missing word at the rate of one in each 3.5 seconds; the poorest pupil could perceive the same relations at the rate of one in each 27.4 seconds." He then goes on to say that:

> With the knowledge of the abilities of "B" (the 3.5 seconds pupil) and of "P" (the 27.4 seconds pupil), which the analogies test affords, it would not take a wise man to predict that, if "P" were held to a standard adapted to "B," he would fail to gain credit in the course. If, on the other hand, the recitation progressed at the rate suited to "P," "B" would lose interest and the recitation would fall far short of calling forth the best that was in him. It

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[1] See Chapters II and III, for methods of discovering differences in abilities.

[2] Parker, S. C. *Methods of Teaching in High Schools*, chap. xv, pp. 362–89. Ginn & Co., Boston, revised edition, 1920.

[3] Miller, W. S. "Uses of Intelligence Tests in High Schools"; in *Twenty-First Yearbook*, National Society for the Study of Education, 1922, part II, pp. 206–07. Quoted with permission of the National Society for the Study of Education, G. M. Whipple, secretary.

would, therefore, seem advisable to place "P" in a class of pupils who would profit by the long interval that must elapse between the question and answer, and to place "B" in a class of pupils like himself mentally.

It is claimed that ability grouping would make possible the better adaptation of the technique of instruction to the needs of the various groups thus formed; that it would make possible the adaptation of the content or materials of instruction to the different speed groups; that the element of competition, now largely wanting in the mixed grouping, would be restored and result in a better quality as well as a greater quantity of work accomplished by each group; and that retardation and elimination, with their attendant evils, would be materially reduced. Since all of these claims for ability grouping are germane to the discussion of educational and vocational guidance, they will be examined in the light of recent experimentation with the plan.

Methods of selecting candidates for the different ability groups. Three different methods may be used, as follows:

(*a*) *By subject-matter achievement alone.* This method is illustrated by what is known as the Arlington plan.[1] According to this plan the pupils of the Arlington, Massachusetts, high school were at first assigned to classes without reference to ability, but at the end of the first six weeks there was a regrouping into sections, according to ability shown in the subjects taken. At the end of the second six weeks adjustments were made on the basis of the additional information and knowledge of ability gained. This plan has the advantage of providing for the possibility that a pupil will be capable of excellent work in one subject, average in another, and poor in another, by reason of special interests and abilities. The greatest disadvantage lies in

[1] Clerk, F. E. "Classification of Pupils in Ability Groups"; in *School Review*, vol. 28, pp. 495 ff.

the fact that grouping is delayed for six weeks, and the further fact that teachers' marks, by themselves, constitute a very unreliable basis for classification according to actual ability.

(*b*) *By mental tests alone.* The development of standardized group mental tests, which make it possible to conduct a rapid mental survey of a large student population, inclines the average administrator to this method of grouping. If, for example, all of the entering pupils in a given grade have been tested, they can be arranged into any number of groups desired — usually three — at the beginning of the school year. Grouping according to the results of a single group mental test, while more reliable than on the basis of school marks, even though the teachers giving the marks have had from six weeks to a half year's contact with the pupils, is subject to a rather high degree of error. Breed and Breslich [1] found that thirty per cent of the pupils classified according to the result of one group test of intelligence were out of place according to the result of another commonly used group test. "This degree of variability," they say, "in the results of measurement calls for great caution in the use of these tests for the purpose of classifying pupils according to intelligence. It would seem that no serious attempt at such classification should be made in any high school without the use of at least two good group tests, supplemented by additional testing where marked disagreement between tests is found."

(*c*) *By a combination of mental tests, achievement tests, previous school record, and teacher's estimates.*[2] If the advantages claimed for ability grouping can be shown to be

[1] Breed, F. S., and Breslich, E. R. "Intelligence Tests and Classification of Pupils"; in *School Review*, vol. 30, pp. 66 ff.

[2] Coburn, W. G. Quoted by Whipple in *Twenty-Third Yearbook*, National Society for the Study of Education, part 1, chap. 1, pp. 14 ff.

anything like as favorable as its advocates claim, the greatest care in making the selection of pupils for the different groups should be exercised. If grouping by marks alone or by mental tests alone fails to give satisfactory results, a more satisfactory grouping can be had by a combination of these methods.[1] The procedure at the Appleton, Wisconsin, High School [2] will illustrate such a combination plan.

The students are grouped according to the results of intelligence tests, supplemented by records of actual accomplishment and by teachers' estimates. There are three groups, X, Y, and Z, indicating bright, medium and slow students. Each student's case is considered distinctly as an individual problem. During the summer vacation the principal makes a study of each student. On the basis of the tests and the records of accomplishment the student is placed, and on the opening day of school he is assigned to the proper section. No comment is made regarding X, Y, and Z groups; he may be placed as an X student in one subject and a Z student in another, though this mixed classification is not frequent. Sometimes a mistake is made in placing a student, but there is such elasticity in the operation of the plan that anyone may be transferred from one group to another reciting at the same period. It is possible to make a change without disturbing any other part of a student's program. The arrangement is such that if a department or a part of a department does not desire homogeneous grouping, as in the case of the freshmen civics classes and the junior English classes of the Appleton High School, it is not necessary to have it.

The above statement includes the essential elements of a workable plan for ability grouping — that is, support of mental-test results by other obtainable data, assignment of pupils to sections in line with prognosis of probable success

[1] Van Denburg, J. K. "On Ability Grouping in the Speyer Junior High School," in *The Junior High School Idea*, pp. 29–34. Henry Holt & Co., New York, 1922.

[2] Rasey, Lee C. "A Program Arrangement for Mental Groups"; in *School Review*, vol. 31, pp. 609 ff. Quoted with the permission of the publishers of the *School Review*, the Department of Education, the University of Chicago.

in each subject,[1] willingness to make shifts, and application only to such departments of a school as desire the arrangement. It further provides that each teacher, willing to cooperate, shall have every type of ability section. This distributes the responsibility and promotes resourcefulness on the part of the teachers. The Appleton experience also demonstrates the possibility of overcoming all program [2] or schedule-making difficulties inherent in the effort to secure homogeneous grouping of pupils.

Ability grouping by sections within grades. This method, often referred to as the X, Y, Z method, is only capable of successful administration where there are large schools, either elementary, junior high, or senior high schools.[3] In small school systems it is not possible to maintain a proper numerical balance between the various sections. Detroit [4] is carrying out one of the most comprehensive experiments along this line.

The experience of a large junior high school in St. Louis, Missouri, is described by H. H. Ryan, its principal, as follows: [5]

> In determining the personnel of the "A" group, the following standards were adhered to: (1) no pupil was included whose intelligence quotient was less than 120; (2) no pupil was included whose pedagogical skills were not above the median; (3) no pupil was

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[1] Toops, H. A., and Symonds, P. M. "What shall we Expect of the A.Q?" in *Journal of Educational Psychology*, vol. 14, pp. 29–32. A discussion of "some elements in ideal sectioning."

[2] Rasey, Lee C. *Op. cit.*, pp. 610.

[3] Van Denburg, J. K. *Op. cit.*, chap. III, pp. 36 ff.

[4] Whipple, G. M. *Twenty-Third Yearbook*, National Society for the Study of Education, part I, chap. I, pp. 15–18.

[5] Ryan, H. H. Quoted in *Twenty-Third Yearbook*, National Society for the Study of Education, part I, chap. III, pp. 60–62. (A. B. C. plan in Ben Blewett Junior High School, St. Louis.) With the permission of the National Society for the Study of Education, G. M. Whipple, secretary.

included who was retarded in physical or social development; (4) no pupil was included whose health was marked "poor" by the physician.

As matters now stand, the "A" group and the highest "B" group are about of the same average intelligence. The "A" group, generally more mature, is doing the work of the three grades (7, 8, and 9) in two years. The "B" group is taking two and one half years for the course, and its work is to a corresponding degree enriched.

After working with different sections of classes selected on the above basis, one of the teachers of the Ben Blewett Junior High School, reports:[1]

This second half-year's experience with my present "A" group only strengthens my impression that the selection of this type of pupil on the basis of general maturity is a step in the right direction. Their school performance and their splendid habits of attention make them responsive in a high degree to a large field of work.

The results of another experiment, conducted by R. R. Cook, in the high school of Topeka, Kansas, seem to indicate that the beneficial results of segregation according to ability into different sections do not result automatically from the adoption of the plan, even though great care is exercised in the formation of the sections. Principal R. R. Cook's conclusions are as follows:[2]

As a result of this experiment we are unable to say that the grouping of high school children according to ability secures better results than random grouping, for a comparison of scores obtained by pupils of high ability in selected and mixed classes, and also a comparison of the scores of pupils of inferior abilities in the various subjects, do not all show the same tendencies.

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[1] Ryan, H. H. *Op. cit.*, p. 61.

[2] Cook, R. R. "Homogeneous Grouping in High School"; in *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part I, pp. 302–12. With the permission of the National Society for the Study of Education, G. M. Whipple, secretary.

Pupils of superior ability in geometry did better work in mixed classes than they did in selected groups. [But] their history scores were much higher than scores of pupils of the same ability in mixed classes. In English the differences were so small as to be negligible.

Neither can we say that segregation is always beneficial to the slow pupils. In this experiment slow pupils in separate groups obtained much better results in geometry, slightly better in English, but in history they were much retarded by being grouped separately.

In still another experiment, made by Principal E. L. Moyer of the Marquette, Michigan, High School, comparisons were made between segregated and mixed groups in Latin and Algebra. Classification was made by the use of Scales A and B of the National Intelligence Tests. Achievements were measured by teachers' marks, plus scores on Hotz Algebra Scales and Henmon Latin Tests. Some of Moyer's conclusions follow: [1]

In the algebra tests the superior pupils who were in segregated sections made about the same scores as those who were in the mixed sections, but in the Latin tests the superior pupils in the superior class excelled the superior pupils in the mixed class. In both subjects the medium pupils in superior or medium segregated classes exceeded the medium pupils in mixed classes. In algebra the poor pupils made about the same scores in the low section as in the mixed section.

In order to judge of the value of segregation we must compare the achievements of pupils who are in segregated classes corresponding with their ability, with similar pupils in mixed classes. When we make this comparison, we find that the superior pupils and the medium pupils appear to do somewhat better work in segregated than in mixed classes. The inferior pupils, however, do not appear to benefit by segregation so far as their scores on the standard tests are concerned. Whether or not they benefit in other ways the data do not indicate.

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[1] Moyer, E. L. *Twenty-Third Yearbook*, National Society for the Study of Education, part 1, p. 322. With the permission of the National Society for the Study of Education, G. M. Whipple, secretary.

At the present stage of experimentation it would appear that ability grouping by means of sections within grades or classes is feasible only in large school systems, and in large schools within those systems. Likewise, it appears that the benefits claimed for the practice tend to be more discernible when applied to the elementary and junior high-school grades, than in the case of the senior high school. In the senior high school segregation appears to bring good results in certain subjects, such as Mathematics and Latin, but to be of doubtful value in English and the social science. There does not seem to be any clear indication that sectioning has developed serious social reactions of an injurious nature, especially where the schools employing the plan are large enough to maintain a parity in numbers included in each section, and also to provide flexible program adjustments.[1]

Provision for individual differences by means of special classes. Medium-sized and smaller school systems, where the number of pupils is not sufficient to justify sectioning within grades or classes, seem to be adopting the "special-class" plan of providing for differences in ability among pupils.

(*a*) *Grade skipping*, which is the alternative to sectioning or special classes, has been found to be very unsatisfactory. After a careful study of this problem Martin[2] makes the following recommendations:

In cases of skipping grades, some provision should probably be made for covering the essentials missed in such a subject as arithmetic and the fundamentals in a subject such as reading. This might be done through rapid advancement classes organized near

[1] Altucker, Margaret. "Is the pedagogically accelerated student a misfit in senior high school?"; in *School Review*, vol. 32, pp. 193.

[2] Martin, A. H. "A Study of the Subsequent Standing of Specially Promoted Pupils"; in *Twenty-Third Yearbook*, National Society for the Study of Education, part I, p. 353. With the permission of the National Society for the Study of Education, G. M. Whipple, secretary.

the end of the term or through coaching classes in which the advanced work is mastered previous to skipping the half grade.

Pupils of average intelligence, as revealed by intelligence tests, as a rule will not succeed after skipping a half grade; under favorable conditions pupils of superior intelligence doing excellent work may be permitted to skip a half-grade below the seventh; pupils of very superior intelligence may skip a half-grade without lowering the quality of their subsequent work.

(*b*) *The ungraded class.* In the beginning of the special-class movement provision was made only for those of low mentality. The feeble-minded or very dull were drained off from the regular classes, and gathered in special or ungraded rooms.[1] The "stigma" attaching to these classes or rooms made them very unpopular. The next step was in the direction of so called "opportunity classes," in which were gathered small groups of children of "mixed" abilities but needing special attention of one kind or another. Some needed help in keeping up with their regular class; others needed to go at a slower pace to avoid retardation and failure; while others were sent to the opportunity room to make special preparation for promotion to the half-grade ahead. The definitely feeble-minded or very dull are, however, segregated in atypical groups.

(*c*) "*Opportunity classes*" have been in successful operation in Oakland and Berkeley,[2] California, and in Denver, Colorado, for a number of years.

An interesting variation of the special class idea is in operation in Jackson, Michigan.[3] In that school system

[1] Irwin, E. A., and Marks, L. A. *Fitting the School to the Child*, pp. 132 ff. The Macmillan Company, New York, 1924.

[2] Dickson, Virgil E. *The Use of Mental Tests in School Administration*, pp. 38–41. Monograph no. 4, June, 1922, Board of Education, Berkeley, California.

[3] Davis, Helen. "The Use of Intelligence Tests in the Classification of Pupils in the Public Schools of Jackson, Michigan"; in *Twenty-First Yearbook*, National Society for the Study of Education, 1922, part II, pp. 131 ff

they have a number of different types of special classes, among which are "speed" classes and "enrichment" classes. The speed classes are designed for the pupils of the upper second through the fifth grades. In these classes a year's work is accomplished in one semester, or two years' work in two semesters, and the pupil then returns to the regular classroom.

Whatever "speeding" a child is capable of accomplishing is accomplished before the sixth grade is reached. "Enrichment" is the watchword from the sixth grade through the junior high school, and this is provided for through the organization of "enrichment" classes, made up of children drawn from a number of schools. Selection is made on the basis of superior mental ability, plus unusual school achievement. This combination of "speed" classes providing for rapid progress during the first four or five years, and "enrichment" classes providing for the employment of superior capacity at tasks capable of enlisting all their energies while taking full time to the upper grades, is designed not only to keep superior pupils working up to their capacity, but also to guard against accelerating them beyond social and physical maturity.[1]

Difficulty of adjusting methods of teaching and content of courses to ability groups. The most difficult problem connected with the grouping of pupils according to ability, aside from the method of selection and organization of the groups, is that of adapting subject-matter and teaching methods to the capacities of the different groups. At the present time the technique of selecting the groups is fairly well established, but very little has been done in the reorganization of teaching content and methods. If the present interest in

[1] Baldwin, Bird T. "Methods of Selecting Superior or Gifted Children"; in *Twenty-Third Yearbook*, National Society for the Study of Education, part 1, sec. 5, pp. 39–47. On psychological age, social age, etc.

ability grouping is to function there must be increased experimentation along these lines. The principles that should govern in the development of curricula for adaptation to various ability groups have been clearly stated by Horn and Rugg.[1] Many reports of practical attempts to apply these principles are needed for the guidance of administrators. There should also follow the publication of suitable textbooks and syllabi for the use of teachers. Unless the idea become firmly established that different ability groups demand differences in content, such as minimal essentials or provisions for enrichment, as well as appropriate methods of teaching, it will soon be apparent that mere ability grouping is a profitless device.

II. Individual Instruction as a Means of Providing for Differences in Capacity

Genesis of plans for individual instruction in public schools. The first impetus toward universal education, entirely at public expense, came from the introduction of group methods of teaching as exemplified by the Lancastrian type of school. In this connection Cubberley says: [2]

> So long as the time honored individual method of instruction, with its accompanying waste of time and disorder, continued to be the prevailing method, only a small number of pupils could be placed under the control of a single teacher. The expense for this made general education almost prohibitive. . . . The Lancastrian schools materially hastened the adoption of the free school system in all the Northern States by gradually accustoming people to bearing the necessary taxation which free schools entail. They also

[1] Horn, E., and Rugg, H. O. Articles on the curriculum principles that should control in development of programs of study for gifted children. In *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part I, pp. 73–121.

[2] Cubberley, E. P. *Public Education in the United States*, pp. 95, 96. Houghton Mifflin Company, Boston, 1919.

made the common school much talked of, and awakened thought and provoked discussion on the question of public education.

The peculiar virtue of the Lancastrian type of school was that it enabled a single teacher to handle a large number of pupils, with the assistance of pupil monitors, and at a minimum of expense, and yet with much greater efficiency than was possible under the prevailing district-school type of instruction. The Lancastrian method gradually evolved into the traditional "grade" method of classifying pupils, which has within recent years been subject to such bitter criticism for its pernicious tendency toward "lock-step" rigidity and lack of adaptability to individual needs and differences. Educational reform has tended to shift gradually between the two extremes, therefore, of the inefficient, one-teacher, district school, with its individual method of instruction, and the highly mechanized and rigid grade systems of the larger cities.

Within recent years there has been a tendency to shift away from the inelastic grade system to more flexible methods of education. We have previously described the efforts to attain this flexibility through sectioning within grades or classes, and through the organization of special classes for pupils of different degrees of learning ability. Attention will now be directed to the experiments with individual instruction which are being undertaken by certain public elementary and secondary schools.

Plans for individualizing instruction. Four more or less well-known plans will be given:

(*a*) *The "Pueblo Plan."* This plan of individual instruction was inaugurated, about 1893, by Superintendent Preston W. Search.[1] In this plan recitations were almost entirely abolished and each pupil, working at his desk, made

[1] Search, P. W. *An Ideal School*, pp. 28–37, and 157–76. D. Appleton & Co., 1901.

progress according to his ability to master the material. It was found that some Latin students were able to read 140 chapters of Cæsar while others were reading 40 chapters. The bright pupils were thus able to go forward at their own gait and not develop habits of laziness, while the slower pupils were able to do well the smaller amount of work accomplished by them. Other schools trying the plan found that it required a very superior type of teacher to insure success, and that it was unduly expensive. Objections were also based on the elimination of the social features of the class recitation, with attendant loss of training in expression and ability to think in a complex social situation.[1]

(*b*) *The "San Francisco Normal Plan."*[2] This plan was adopted in connection with the elementary training school connected with the San Francisco State Normal School, in 1913. The characteristic feature of this plan, which enabled teachers to keep in touch with the individual rates of progress of their pupils, was the careful way in which all material was prepared, either on cards or lesson sheets. It was put in such form that with very little direction from the teacher the child could work along by himself. Recitations were held, when desirable, with groups of pupils near enough together in their accomplishment to make oral discussion profitable. Self-reliance was developed among pupils, and each made progress according to ability. It has not been unusual for superior pupils to accomplish all the work of the eight grades in five years, without skipping or uneven intervals of "low pressure" and "high pressure," as when special coaching or speed classes are resorted to for catching up with grades ahead.

[1] Parker, S. C. *Methods of Teaching in High Schools*, pp. 379–81. Ginn & Co., Boston, 1920.

[2] Burk, Frederick. "Individual Instruction *vs.* the Lock-Step System"; in *The American City*, vol. 18, pp. 327–33.

(c) *The Winnetka plan.*[1] As a further development of the San Francisco normal plan, and as illustrating the possibility of adapting the plan to an entire school system, the Winnetka plan is of unusual significance. By shifting from what he calls the "time unit" to the "achievement unit," and varying the time to fit the individual capacities of the children, Superintendent Washburne has succeeded in adapting the individual plan of instruction to the schools of an entire school system. The present degree of success attained has been made possible by the use of achievement tests, applied so as to measure not the school or the system for the purpose of establishing so-called "norms," but for the purpose of measuring the achievement of the individual child and diagnosing his difficulties. Practice material, corresponding with each process contained in the tests, was prepared in order that each child might practice upon, with a view to removing, his own specific weaknesses. The material thus prepared was made as nearly self-instructive as possible, in order that it might be used by the pupils themselves with a minimum of help from the teachers.[2]

The achievement unit takes the place of the time unit in the individual work on the minimum essentials. Children's marks and promotions are based entirely upon individual work. There are no recitations; there is no grade repetition; there are no failures; there is no skipping. No child is held back to a slower rate of progress than is natural to him; none is forced forward too rapidly for thorough work. Each "goal" must be achieved by each pupil before he can go on to the next goal.

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[1] Washburne, Carleton W. "Attainments of Gifted Children under Individual Instruction"; in *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part I, pp. 247 ff.

[2] Washburne, Carleton W. "Measurement as a Key to Individual Instruction at Winnetka"; in *Journal of Educational Research*, vol. 5, pp. 198–99. Quoted with the permission of the publishers, The Journal of Educational Research, B. R. Buckingham, editor.

The Winnetka plan provides, however, for the development of powers of expression, social coöperation, and development of social attributes in activities not connected with mastery of the minimum essentials in academic subjects.[1]

The social work consists of class-discussions, group projects, dramatizations, special reports, group games on the play ground, group singing — all activities in which the group acts as a whole and in which each child is contributing his share to the group. This work occupies from one third to one half of the school day, and is as important a part of the curriculum as the individual work. We have more opportunity for children to express themselves and to develop social attributes than systems which use class recitation, because the individual work on minimum essentials economizes the children's time. The social work is also freed from the incubus of discovering whether or not children have studied their lessons. (In the Winnetka plan the children are neither tested, marked, or promoted on the basis of what is done under the heading of "social work.")

The necessary steps to be taken in establishing a system of individual instruction on the Winnetka-plan basis are thus described by Superintendent Washburne:[2]

The first step is the recasting of the course of study in terms of specific goals to be achieved by the pupils of each grade. These goals are not an outline and are never in terms of pages to be covered nor time to be spent. They are definite statements of the skills to be achieved, facts to be known, and habits to be acquired. . . . Pupils, teachers, parents and supervisory officers all know exactly what the minimum requirements are for any subject in any grade of work.

[1] Washburne, Carleton W. *Op. cit.*, *Journal of Educational Research*, pp. 200–01. Quoted with permission of the publishers, the *Journal of Educational Research*, B. R. Buckingham, editor.

[2] Washburne, Carleton W. "Can Public Schools be Fitted to the Individual Pupils"; in *Proceedings of the Illinois State Teachers' Association*, 1920. Quoted with the permission of the author, Superintendent C. W. Washburne.

The next step is the devising of tests which will show accurately whether or not a pupil has reached his goals and will indicate clearly the remedies to any weaknesses brought out by the tests. . . .

The third step in the developing of an individual system is the preparation of development and practice material which can be placed in the hands of the children themselves, and which will make it possible for them to correct the defects shown by the diagnostic tests, or to prepare themselves beforehand for the taking of these tests. The preparation of this practice material, like that of the tests, requires considerable work.

The fourth step is the devising of a system of bookkeeping that will not be cumbersome, but that will indicate at a glance just where any pupil is in any subject, and what weaknesses he has to correct.

Superintendent Washburne's preliminary report [1] on the Commonwealth Fund investigation seems to indicate that homogeneous grouping by mental tests does not really insure equality of ability in the different subjects. He found that a child, I.Q. 166, was one year and six months advanced in reading, eight months in language, and eight months in arithmetic. Another child, I.Q. 136, is just normal in language, one month ahead in reading, and two months behind in arithmetic. He concludes:

These facts would indicate that if one is to carry on group instruction, making ability groups for gifted children, those ability groups would have to differ in each subject. They would have to include some children whose I.Q.'s would not indicate that they are gifted and exclude some whose I.Q.'s would indicate that they are gifted. The complexity of so many varying types of grouping makes one turn naturally to differentiated individual assignments or to the simple expedient of permitting each child to progress at his own rate in each subject.

[1] Washburne, Carleton W. In *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part I, pp. 247–61. Quoted with permission of the National Society for the Study of Education, G. M. Whipple, secretary.

In Winnetka the rapid progress of gifted children enables many of them to cover the first six grades in the minimum essentials and associated group and social activities in from three to four years, but when the junior high school (seventh and eighth grades) is reached variety and enrichment, under careful guidance, are the watchwords.

(*d*) *The Dalton plan of individual instruction:* While the Winnetka plan just described is in operation primarily in the elementary grades, the Dalton plan has been adopted by a number of high schools in this country, and by a much larger number of schools of all kinds in England. Miss Helen Parkhurst, the originator of the Dalton plan, arrived at her educational conclusions as the result of a varied experience with all types of schools connected with American teacher-training institutions. From Emerson, Swift, and Dewey she received philosophical nurture, and from Burk and Montessori much in the way of practical help and suggestion before maturing the plan which takes its name from the Massachusetts town where the first full-fledged experiment was carried out.

The underlying principles of the plan, as stated by Miss Parkhurst, are as follows:[1]

1. The pupil is granted the largest measure of freedom possible. The idea being to permit him to continue, without interruption, work which is absorbing his attention at any given time. This is based on the psychological principle that material is much more effectively mastered when interest is at a high pitch.

2. The principle of coöperation is also exemplified in the Dalton plan. Students are encouraged to work together on the contracts, and the teacher, as the subject-expert lends assistance when and where it is most needed.

[1] Parkhurst, Helen. *Education on the Dalton Plan*, chap. II, pp. 34–35. E. P. Dutton & Co., New York.

3. The course of study for each class is divided up into "jobs," and each pupil undertakes to master these "jobs" through signing a contract to complete the work. Neither the curriculum nor the class organization, as such, are necessarily abolished.

The subjects of the curriculum are divided into major subjects such as mathematics, history, science, English, geography, foreign languages, etc., and minor subjects, as music, art, handiwork, domestic science, manual training, and gymnastics. Major subjects are used as the basis of promotion. Rooms are made into subject laboratories, where all the books, apparatus, study helps, etc., relating to a particular subject are assembled, and where the children come together to study that subject. The teacher in charge of the room is the expert in that subject. She acts as a sort of coach or coördinator and holds occasional conferences, but no regular recitations in the ordinary sense of that word. The work to be accomplished for a given period is divided up into jobs, or units, in the form of a contract which the child signs. These contracts are returned to the pupils as soon as the assigned work is accomplished.

The time schedule is abolished and each child works "on his own," spending much or little time on any given subject on any particular day, so long as he completes his contract job within the maximum time allotment, which may be varied to suit the discovered gait of each child. While there are no set recitations the teacher may arrange to hold group discussions to clear up difficulties which may have been found to be bothering a number of pupils. Some teachers make a practice of having regular group discussions once or twice a week, which all the members of the class are required to attend. In this way the desirable features of the recitation are preserved in connection with the Dalton principle of freedom. As each child completes a unit or job the ac-

complishment is indicated on that child's individual chart in the laboratory room of that subject. Thus the teacher is able to keep in touch with what each child is doing, and so give help and encouragement where it is most needed. Tests are given to satisfy the teacher that the work has actually been accomplished before the next "job sheet" is handed out.

The reports from those who have tried out the Dalton laboratory plan are conflicting. Some high schools, which started out to apply the plan to the entire program of study, have dropped it altogether. Others have retained the idea in the social sciences and mathematics only. English teachers who have tried the Dalton plan report [1] that it entails much heavier work on the teaching staff, because of the necessity of devising adequate tests and keeping account with individual students as to their progress in meeting contract obligations. The fact that several hundred English elementary and secondary schools have adopted the plan is evidence that they have not found the difficulties of administration insurmountable.

The success of individual instruction, either under the Dalton laboratory plan or under the Winnetka plan, seems to be dependent, to a very large extent, upon the organization of the assignments, the development of appropriate tests, the method of keeping track of the progress made by each pupil, and especially upon the resourcefulness and sympathetic interest of the teachers. In the Winnetka plan two groups are recognized — that is, the self-reliant and the supervised groups, which means that those who show judgment in the use of their time are free to work on different subjects at will. The lazy or irresponsible pupils are supervised to guard against wasted effort. This is an

[1] Parkhurst, Helen. *Op. cit.*, p. 270.

improvement over the Dalton plan, where all are supposed to be self-reliant, but many are not capable of going on "their own" when it comes to carrying out their "study contracts" within a specified time.

III. Supervised Study and Other Methods

Plans for providing for differences in ability. Four plans are of importance to us in the matter of guidance, namely:

(*a*) *Supervised study.* For the great majority of high schools and junior high schools, supervised study is undoubtedly the most practicable plan for taking care of individual differences in ability to master the lesson assignments. Even in the traditional elementary room, where pupils are under one teacher all day and for all subjects, there is some opportunity for the teacher to give individual attention to pupils. In the high schools, though, where a different teacher is encountered each period and all the time is devoted to discovering what has been learned out of class, there is no opportunity for the teachers of the various subjects to check up on the study habits of their pupils.[1]

Pupils who have never learned how to study are burdened with heavy assignments for home work; home conditions are adverse to concentration; help is not available when most needed; and the result is failure to prepare the assignment. This process repeated becomes chronic, and the student fails in his work for lack of timely help and guidance in the best methods of study. The study hall,[2] where extra periods during the day are spent, does not yield much better results than home study because the teacher in charge is a specialist in one or two subjects at most, while every subject in the

[1] Proctor, W. M. "The Study Habits of 1660 Pacific Coast High School Pupils"; in *School and Society*, vol. 6, pp. 326 28; 596–600; 624–30.

[2] Hall-Quest, A. L. *Supervised Study*, p. 97. The Macmillan Company, New York, 1916.

program of studies may be represented during almost any period of the day in the study hall.

A great many high schools have adopted some form of supervised study, the most common being what is known as the lengthened or divided period.[1] In this plan there is a ninety minute period, divided 45–45 — that is, forty-five minutes for recitation and forty-five minutes for preparation of the next day's lesson under the supervision of the class-room teacher; or the period may be eighty minutes in length, divided 40–40; or seventy minutes, divided, 35–35; or an hour period, divided 40–20 or 30–30, etc. The advantages claimed for the plan are that it provides opportunity for training pupils in right habits of study; that it enables the teacher to develop the assignment lesson, and to give help on difficult problems when it is most necessary; and that it makes possible the reduction of home-study to a minimum.

The lengthened period lends itself admirably to the development of laboratory methods of teaching the various subjects, particularly mathematics,[2] the social sciences, and natural sciences. It is adapted to small and medium-sized as well as to large high schools, and can be introduced without much added cost.

(*b*) *Conference periods.*[3] Where for any reason it is not possible to try out the lengthened period for supervised study, conference periods are sometimes employed. The period just before school in the morning, or the period just after school in the afternoon are most frequently the ones set aside as conference periods. All teachers are supposed to be in their rooms at these periods to meet and confer with

[1] Young, Eula, and Simpson, M. R. "The Technique of the Lengthened Period"; in *School Review*, vol. 30, pp. 199 ff.

[2] Breslich, E. R. "Supervised Study in Mathematics," in *School Review*, vol. 31, pp. 733 ff.

[3] Hall-Quest, A. L. *Op. cit.*, pp. 98–103.

students who are having difficulty with their school work. Usually attendance upon these periods is compulsory. A teacher sends in a slip to the principal's office, indicating that a certain student has been doing poor work. The office then notifies the pupil to report for extra study at the conference hour until the work is again at par. According to some such plans no teacher is expected to fail a pupil who has not been given a chance to strengthen his work by attendance at the conference.

(*c*) *The study coach.*[1] According to this plan an unassigned teacher, who is a capable teacher in several subjects, is attached to the high school. All pupils having difficulty with their school work are sent to this teacher for counsel and assistance. Sometimes the study coach is in constant charge of the main study hall, but as a general rule the study coach has a private office to which pupils are sent on definite appointments for consultation. This is an improvement over the study-hall arrangement, since it is very difficult to give individual attention to needy pupils while attempting to maintain general oversight in a large room full of pupils. The study-coach plan, in either of its methods of application, has not met with general favor, first, because of the fact that it is so difficult to find a teacher sufficiently expert in all of the high school subjects; and second, because the coaches find it very wearing to devote all of their time to the consideration of other people's troubles.

(*d*) *The house principal.* High schools in the larger cities are making use of house principals as a means of solving the problems of adjustment that arise in their schools. The idea is to appoint one teacher for each of the high school classes to devote his or her entire time to that class. Special rooms, seating from two hundred to three hundred pupils, are provided. All pupils of the first-year class spend their

[1] Hall-Quest, A. L. *Op. cit.*, pp. 103–15.

free, or study periods, in their own room, over which the house principal for the first-year class presides. While there may be eight hundred first-year pupils, not more than two hundred will probably have free periods at any one time. The house principal in charge of their room has the whole year to get acquainted with them, acts as their adviser, keeps in touch with their teachers, helps them in scholastic difficulties, and in general acts as sponsor and counselor in respect to all matters, both scholastic and social, which concern the members of that class. Each of the other classes also has its house principal.

In some schools the house principal remains with the same class during its entire four years. In other schools the classes move on but the house principals take up each year the same grade, and become experts in the type of problems peculiar to first-, second-, third-, or fourth-year pupils. Where the school is large enough to require the services of two house principals for each high-school class, a woman teacher is made house principal for girls and a man teacher becomes house principal for boys. The house principal accomplishes, for the large high schools, what the deans of boys and girls are expected to accomplish in the smaller high schools.

Individual adjustment plans adapted to local needs should be thoroughly tried out. Among the plans for taking care of individual differences, which have been outlined above — ability grouping; special classes; opportunity classes; individual instruction on the Winnetka, San Francisco, or Dalton laboratory plans; supervised study; conference periods; the study coach; or the house principal — the school administrator should be able to find one suited to the conditions under which he is working. Having selected the plan which he believes to be best adapted to his local conditions he should give it a thorough try-out. It took five years of constant experimental work to launch the Winnetka plan.

Many high schools are trying out the Dalton laboratory plan in one or two subjects with a view to further extension, if the initial experiment proves to be satisfactory.

Whatever plan is selected the preliminaries should be carefully worked out, and the plan itself gradually introduced. The personnel should be selected, if possible, from among the teachers in the local school system, as they will have a better understanding of local problems and have fewer personal adjustments to make. It has happened too frequently in the past that promising plans have been merely sampled — tried out just long enough to furnish data for an article in an educational magazine — and then abandoned. The problem of adjusting the school tasks to the individual differences of pupils is so important, however, that it deserves the best thought as well as the sustained effort of all those who are responsible for the continued progress and improvement of our public schools.

QUESTIONS AND PROBLEMS

1. Suggest conditions under which grouping of pupils according to ability might not be feasible.
2. Under what conditions could ability grouping probably be carried out successfully?
3. What methods or devices would you employ in selecting the pupils for the various ability groups?
4. Assuming that you have grouped your pupils into X, Y, and Z groups, what will be your method of handling — (*a*) the content of the courses; (*b*) the method of teaching, (*c*) the time to be allotted each group for completing its quota.
5. What are the most favorable features of the Winnetka plan of individual instruction? The difficulties in the way of its general adoption?
6. Suggest the points of strength and weakness of the Dalton laboratory plan of instruction. Where is it being tried out most extensively?
7. In so-called "opportunity classes," is the practice of mixing bright and dull pupils sound procedure? Give arguments on both sides.
8. Is it good administrative policy to require a teacher to give a pupil due warning of his deficiency before failing him?
9. Make an observation of the manner in which a general study hall in

some high school is conducted, and report suggested improvements in the method.

10. Instead of attempting to adjust school work and methods of teaching to the learning capacities of children, why should not the doctrine of "the survival of the fittest," mentally, be rigidly applied?

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CHAPTER VII

GUIDANCE IN THE SELECTION OF SUBJECTS, COURSES, AND CURRICULA

I. Educational Guidance in the Elementary Grades

Aims and functions of educational guidance in elementary schools. Educational guidance may be defined as consisting of all such school activities as have for their purpose the guidance of pupils in their choice of schools, courses of study, or curricula, as well as all activities connected with the discovery of individual differences and the adjustment of teaching methods and content of subjects to the needs and abilities of children. Since mastery of the fundamental subjects and the training of children in those activities which make for social integration are the chief concern of the elementary schools, there will be little or no subject election. Specialization will not be a feature of elementary education, particularly under the 6–3–3 plan of organization, hence educational guidance in the elementary grades will be primarily concerned with the exploration of abilities and the adjustment of school work to the rate of progress best suited to each child. The work of exploration will be undertaken by the principal, the classroom teacher, the full-time or part-time counselor, or in the case of the larger cities by a Bureau of Research and Guidance.[1]

Effective guidance will be promoted where minimum essentials are defined in each of the tool subjects, and where there is opportunity for study and activities related to the aims of health, home membership, citizenship, worthy use

[1] See Chapter XV, for a discussion of the functions of a Bureau of Research and Guidance.

of leisure time, and ethical character. Educational guidance in the elementary grades will also undertake to furnish information to pupils relating to the schools and educational opportunities ahead. Counselors will seek to influence children to remain in school just as long as it is socially and economically possible for them to do so. The successful carrying out of the functions above enumerated will require careful planning, as well as faithful service on the part of teachers and counselors if tangible results are to be secured.

Functions to be carried out by the elementary classroom teacher. The necessary data, such as intelligence-test scores, achievement-test scores, school marks in previous school experience, and observations of former teachers regarding special abilities, disposition, etc., may be supplied from the cumulative record card. There should be available, in addition to this record, valuable hints from the experts of the Bureau of Research, or others, who have contributed to the exploration of the child's abilities, regarding the solution of the problems connected with that child's school progress. There should also be some person, representing the entire school system or the particular building in which the child is found, who heads up the educational guidance in that system or school. The person, though, who comes into personal touch with the child, who has an opportunity to know him in ways that cannot be revealed by the most accurate system of measurements and records that was ever devised, is the classroom teacher. True guidance of any type — educational, vocational, social and moral — cannot be accomplished by mechanical or absentee methods. It requires the personal touch, the human element, to make it effective. Unless there is added unto all the data which scientific measurements can supply the further element of human sympathy, tact, and the practical common sense of a wise teacher, efforts at any kind of guidance will fail.

The elementary school teacher has a peculiar advantage when it comes to putting into practice the principles suggested in the preceding paragraph. In the grades, up to and including the sixth, she has the child under her supervision during the entire school day. She has the opportunity to observe him under all sorts of conditions. She frequently has a part in supervising his play activities, and is thus in a position to note his behavior in social situations as well as in connection with set school tasks. If in addition to this personal contact she has been trained, as she will undoubtedly be trained in the future, to give and interpret standardized mental and subject-matter tests, she will be almost ideally equipped to act as guide and counselor to her pupils. The counsel of an elementary classroom teacher, so trained and equipped, will be based upon reliable objective data, interpreted in the light of personal knowledge and sympathetic insight, and given in the spirit of helpfulness. There is no "determinism" in guidance so conceived and so carried out.

Objectives of educational guidance in the elementary school. The method of curriculum organization for guidance has already been described as by the process of activity analysis,[1] a determination of the fields of activity in which as citizens of a democracy we must all inevitably participate. The part which the school must play in developing the skills, imparting the knowledge, and cultivating the attitudes essential to effective participation in these fields of activity is discovered by analyzing out the contributions which other agencies can be reasonably expected to make. Those phases of training in each field which cannot be better provided for by home, church, and out-of-school social contacts, must be undertaken by the school. The process of analysis must again be employed to discover the minimum of training,

[1] See Chapter V, on the Organization of the Program of Studies for Guidance.

along these fundamental lines of activity, which each unit of a democratic social order must have in order that the best interests both of the individual and of society may be properly safeguarded.

Once these general principles have been formulated, the task arises of applying them in specific cases. This is the pivotal problem of educational guidance in the elementary grades, because it is only in the elementary grades that the schools have an opportunity to reach "all the children of all the people." In meeting the problems of adjustment as they arise in individual cases, both the welfare of the individual and the welfare of society must be kept in mind. We may determine, theoretically, that every individual should have such and such training in the interest of social welfare, but we may discover by our process of exploration that a given individual's ability will not enable him to absorb that amount of training, or that it cannot be absorbed in the time ordinarily set for its accomplishment. We must then be prepared to make the best adjustment possible in the light of all the facts. In its essence it is strictly an individual problem and demands individual treatment. Common sense dictates that we face the facts and do our best to give to each child that type of training which is best suited to his capacity to learn and to his needs as a future citizen. This is just what educational guidance seeks to do.

Specific methods will be determined by local conditions. The various methods now employed in taking care of individual differences among school children have already been described.[1] When to employ speed classes, enrichment classes, sectioning according to ability, or some form of individual instruction in the elementary grades will depend upon size of school, cost of administration, and training and

[1] See Chapter VI, "Guidance through Provision Made for Individual Differences."

interest of teachers, supervisors, or principals. In 1920, there was a fraction less than fifty per cent of the people of the land living in rural communities, i.e., in places having 2500 or fewer inhabitants. The predominant type of school serving the children of this half of our total population is the one-room, one-teacher, rural school,[1] where all the grades, 1 to 8 inclusive, are taught by one teacher, though many consolidated and small town schools also will be found. Since the children who attend these schools are as much of an asset to the national life as those who live in urban communities, it is important that their teachers should be trained in the methods of educational guidance best adapted to the type of school which they must teach. Brooks [2] has demonstrated that rural teachers can be so trained, and with marked benefit to their general skill as teachers and counselors of youth.

In large towns, and cities of from 5000 to 15,000 inhabitants, special classes or special rooms may be added to supplement the individual work of the classroom teachers in providing for the needs of atypical children. In the medium-sized cities up to 100,000, a variety of special classes, similar to the Berkeley plan, or the Jackson, Michigan, plan, previously described,[3] may be successfully carried out. In cities having over 100,000 inhabitants a combination of sectioning, special classes, and phases of individual instruction may be had, under the direction of a special Bureau of Guidance and Research.

Results that may reasonably be expected. The results attained in Kansas City, Missouri, are significant of what can be accomplished where a large city is applying the methods

[1] National Educational Association, *Research Bulletin*, vol. 1, no. 1, 1923, pp. 40–43.

[2] Brooks, S. S. "Practical Use of Standardized Tests in Rural Schools"; in *Journal of Educational Research*, vol. 1, pp. 392 ff.

[3] See Chapter VI.

herein described. There are only seven elementary grades, with a four-year high school and a two-year junior college completing the system. A definite policy of educational guidance, with sectioning according to ability, and adaptation of subject-matter to the various sections, is in operation in the elementary grades. The guidance counselor [1] reports that eighty per cent of all the children who enter the grades of the elementary schools in Kansas City are completing the course. The average for the United States of those completing an eight grade elementary system is about fifty per cent. In Kansas City, seventy-five per cent of all who enter the first grade reach the high school, and twenty-nine per cent complete the high-school course. For the country at large the corresponding percentages are about forty-five per cent and fifteen per cent.

Reports from other cities, organized on the 6–3–3 plan, or the 6–2–4 plan, and where careful attention has been given to educational guidance, are equally encouraging.[2] It will be seen, therefore, that educational guidance in the elementary grades, effectively organized and carried out, tends to shorten the period of common integrating training, to bring a greater number of children entirely through the elementary course of study, and to introduce a much greater number of pupils than the ordinary educational program seems to do to the possibilities of secondary education.

II. Educational Guidance in the Junior High School

Functions of educational guidance in the junior high school. Those who enter the junior high school, under the

[1] Lingenfelter, Elizabeth. *News-Bulletin*, Bureau of Vocational Information, vol. 1, no. 25, pp. 3 and 7, New York, December, 1923.

[2] Other cities reporting similar situations, with reference to added holding power since reorganization, could be cited, among them: Providence, Rhode Island; Atlanta, Georgia; Jackson, Michigan; Berkeley, Oakland, and Pasadena, California; and Seattle, Washington.

6–3–3 or the 6–2–4 plan of organization, are presumed to have completed at least the minimum essentials of the "tool subjects," as well as of the social or "common integrating" subjects. They are also presumed to have entered upon the early adolescent stage of physiological development, and they are approaching mental maturity. They have arrived at the point in their educational progress where differentiation is desirable. If we think of elementary education as a three or four track mainline system, with provisions for trains going in the same direction at differing rates of speed, but scheduled for a common destination, we may indicate the beginnings of secondary education as the junction point where the lines begin to take different directions with different ultimate destinations. The function of educational guidance in the junior high school then is to assist each pupil to discover his ultimate destination, educationally, and to get on the train (curriculum) that will enable him to arrive at his objective.

This means that the educational counselor in the junior high school should undertake to see that each child has a chance to "find himself," i.e. explore his own abilities; to engage in the activities best calculated to give training to the abilities discovered; and to receive such reliable information regarding "the road ahead" that he will be able to read the signals and reach his selected station safely.

Organization of guidance in typical junior high schools. The Holmes Junior High School, in Philadelphia, having 1700 pupils and fifty-three teachers, has an excellent guidance program.[1] The theory back of the Holmes plan [2] is that "guidance lies back of all worthwhile teaching of

[1] Lyman, R. L. "The Guidance Program of the Holmes Junior High School"; in *School Review*, vol. 32, pp. 93 ff.

[2] Thomas-Tyndal, E. V., and Myers, J. D. *Junior High School Life*, chaps. I and II, pp. 1–20. The Macmillan Company, New York, 1924.

adolescents, namely, the well-rounded development of the individual through the wise direction of his activities." Personal, remedial, civic, and cultural guidance are accomplished through a number of student organizations or clubs, carefully supervised by instructors. A seventh period has been added to the school day, known as the guidance period, and all club activities are scheduled for this period.

(*a*) *Personal guidance.* The extra period on Fridays is devoted to personal guidance by the home-room teachers. This teacher is responsible for familiarizing herself with the data on each child's personnel or cumulative record card. She employs the period to become better acquainted with her group and to indoctrinate them with the "spirit of the school," as well as to set up high standards of social and moral conduct. On the fourth Wednesday of each month each class-room teacher arranges private conferences with those pupils in her classes who are having difficulty with their work in the subjects which she teaches.

(*b*) *Remedial guidance.* This has the right-of-way for certain groups during the extra period on Mondays, Tuesdays, and Thursdays. Pupils who have failed or who have been conditioned are organized into "restoratory groups"; those who are in danger of conditions come together in "preventive" groups; and those who have special lines of interest in the nature of hobbies, etc., are associated together in "opportunity" groups. These remedial groups are in charge of the best teachers in the school for the stated special periods, and one strong, all-around teacher devotes her entire time to remedial work. This program has resulted in a fifty per cent reduction in the amount of failure and retardation in the school.

(*c*) *Civic guidance* is accomplished through an effective scheme of self-government.[1] Each home-room is called a

[1] *Op cit.*, chap. VIII, pp. 85–91.

"chapter" of the Industrious Civic Union, and elects a delegate to each of the administrative bodies comprising the Union; that is, Council or Administrative Committee, the Departments of Public Works, of Safety, of Sanitation, and of Social Welfare. Each of these administrative bodies is divided into bureaus or committees, each with an important duty to perform in relation to the social and civic life of the school community. Through these committees the effort is made to give every child a chance to participate in the civic service of the school.

(*d*) *Cultural guidance* [1] functions through the medium of vocational, recreational, and enrichment clubs. Membership in the remedial clubs is compulsory for those in need of such help; active delegates in the civic committees are elected by their peers; those who join the recreational clubs do so of their own free choice. Of these cultural clubs there are more than fifty, such as the Dramatic Club, the Art Collectors' Club, the Camp Cookery Club, and special clubs connected with each subject in the program of studies. Before a club receives official sanction it must show: (*a*) that it meets the needs of several children; (*b*) that it is an addition to the types of activity already available; (*c*) that it contributes to training for citizenship; and (*d*) that it will not arouse political or religious animosity on the part of the parents.

The success of the Holmes Junior High School plan so favorably impressed the school authorities in Philadelphia that they planned eighteen other junior high schools for the city, to be organized on a similar basis.

Educational guidance in the junior high schools of Pittsburgh. The following are the essential features of the program of educational guidance in the junior high schools of Pittsburgh, Pennsylvania:

[1] *Op. cit.*, chap. x, pp. 110–17.

(*a*) *Classification according to ability.* In Pittsburgh, all the pupils of the seventh grade in the junior high schools follow the same course of study. Differentiation does not begin until the eighth grade is reached. Beginning in the seventh grade, all pupils are grouped for instructional purposes according to ability, as discovered by general intelligence tests, achievement tests, and teachers' ratings. Speaking of the benefits of such classification, Dr. Rynearson says: [1]

> Some of the opponents of such classification criticise it on the ground that it will create a class of intellectual snobs. That is precisely what it does not do. In two years during which it has been in force here there has been no evidence of any feeling. As a matter of fact, the pupils are for the most part unaware of any such plan of classification. Pupils from slow groups exhibit as much fine school loyalty and class spirit as the pupils in the higher groups. There is less failure and more interest in school. The school offers a better chance than it did before it adopted the use of tests for classification purposes.

(*b*) *Try-out courses.* One phase of "exploration of pupil abilities" is carried out by means of work given to seventh-grade pupils in the "General Shop." In the general shop is found equipment for teaching printing, wood-turning, wood bench-work, simple electrical wiring, sheet metal work, and light machine work. Boys in these classes are kept on one kind of work for about five weeks at a time. This work in the general shop is not thought of as trade training, but as real "try-out" or guidance training. To quote again:

> The record of this general shop work becomes a valuable piece of information when the counselor comes to advising the pupil regarding his choice [of courses] at the close of the seventh grade. . . . Our experience with the general shop has shown us its superiority over

[1] *Vocational Guidance Bulletin*, pp. 28-30. Board of Education, Pittsburgh, Pennsylvania, 1922.

the traditional manual training shop with nothing to offer but wood-working. The wider the range of opportunity, the more valuable and significant the resultant choice.

The exploration idea is not confined to the mechanical or industrial subjects. If a pupil passes in what are called the core subjects of English, mathematics, and social science, he is permitted much leeway in changing subjects or courses during the seventh and eighth grades. This enables the counselors to advise more accurately regarding the high-school curriculum that should be undertaken at the beginning of the ninth grade.

(*c*) *Weekly conference hour with teachers.* One hour per week is reserved for the meeting of the report-room teacher with her pupils for individual or group conferences. Matters pertaining to guidance are reserved for this period. During this time the teacher finds out about the home environment, personal habits, ambitions, school difficulties, and other matters of value in counseling his pupils. The official counselor always keeps in close touch with the report-room teacher, because the latter can find out more about a pupil in a semester of conference periods than the counselor can in a few interviews.

(*d*) *Guidance regarding school opportunities ahead.* Group conferences are held with pupils in the sixth grade about to enter the junior high school, for discussion of the junior high school and its value to them in helping them to prepare for their place in the world. The junior high-school classes also make visitations to high school departments, other than those with which the pupils come in contact, to gain an idea of the opportunities offered by the senior high school. In addition to these group conferences and visitations, there are individual conferences with counselors and teachers regarding courses and electives for the senior high-school program.

Expected outcomes of educational guidance in the junior

high school. The guidance programs of the two types of junior high school above described indicate different methods of approach in the solution of the problems involved but the ultimate aim in each case is the same. Each plan undertakes to see that the child has a chance to carry forward his general "integrating" education, and that he is exposed to a variety of new experiences, which enable him to try himself out along cultural, æsthetic, and vocational lines of interest.

Both plans also undertake to make sure that the child will know more about social and civic responsibilities by first-hand participation in social and civic situations of a vital nature, and that each will have a chance to learn about the world's work and his own possible relation to that work through aroused interest in an appropriate life career. Finally, a truly functioning educational guidance in the junior high school will give exact information regarding the educational preparation necessary for different life careers, and provide opportunity for visitation of schools and for learning the character of the curricula offered by the senior high school.

III. Educational Guidance in the Senior High Schools

Pre-guidance. It could easily be demonstrated that one of the reasons for so large an elimination between the eighth and ninth grades, in systems organized on the 8–4 plan, is the failure of the high school to "sell its wares" to its potential patrons — the pupils about to graduate from the eighth grade or the junior high school. In the days when but one curriculum was offered in the high school and that one all prescribed, the need for pre-guidance was not so apparent, but when, as in the case of many of our cosmopolitan high schools of to-day, there are eight or ten curricula offered, and as many as two hundred different courses open from

which selection may be made, such guidance becomes a necessity.

What may be accomplished by judicious advertising and pre-guidance in the way of increasing high-school attendance is thus described by Dr. R. D. Allen, Director of Research and Guidance, Providence, Rhode Island:[1]

In Providence in the year 1919–20 only sixty-five per cent of the grammar school graduates entered high school. During that year fifty advertisements were devised by the vocational adviser with the assistance of an advisory committee of the Town Criers, an organization of advertising men. These advertisements call attention to the value of high school education. They were written upon the blackboards or placed in printed form upon the walls, one at a time, and the teachers thoroughly discussed with their pupils the points set forth. As a result of the use of these advertisements ninety per cent of the grammar school graduates entered high school that year, and the average has remained at approximately that figure since that time during periods of both good and poor financial and industrial conditions.

The pre-guidance program of the San Mateo, California, High School is thus described in the California Report of the Committee of Fifteen:[2]

There are six or seven elementary districts in the San Mateo Union High School District. During the last half of the eighth grade experience of the elementary pupils in this district, a representative of the high school gives a talk on the advantages of a high-school education and leaves printed programs of study of the high school with each Eight-A pupil. Later, the same representa-

[1] Allen, Richard D. "Educational Guidance in the High Schools," *National Vocational Guidance Association Bulletin*, vol. 1 (January, 1923), pp. 84, 85. Quoted by permission of *The Vocational Guidance Magazine*, J. F. Allen, Editor.

[2] Proctor, W. M. "Educational, Vocational, and Moral Guidance"; in *Report of Committee of Fifteen*, p. 111. California High School Teachers Association, San Francisco, 1923. Quoted by permission of the publishers, The California High School Teachers Association, Arthur H. Chamberlain, secretary.

tive calls again to answer questions and to assist individual pupils in their choice of programs. Between the first and second visit the high-school representative has made himself acquainted with the elementary record of the pupils to be assisted, and also with any other available data, including mental test scores. During the summer vacation at least three follow-up letters are written to the pupils and their parents. The final step in the San Mateo plan of pre-guidance is to have all first year students register during the week preceding the regular opening of the high school. The principal, vice-principal, registrar, and ninth-year class adviser are always on hand during this week to give educational counsel and assist in making out final programs for the first-year group.

The above plan, followed for six years by the San Mateo Union High School, has resulted in a ninety to ninety-eight per cent — one year a one hundred per cent — attendance of Eight-A graduates upon high school opening the following term. Schedule making has also been greatly simplified, and the number of ninth-grade failures has been materially reduced by reason of this pre-guidance program.

Classification for improved instruction. Ability grouping in high school has lagged far behind the same movement in the elementary schools, partly because of the difficulty encountered in applying the idea to certain high-school subjects, partly on account of the increased difficulty in schedule making which it entails, but primarily on account of the natural conservatism of high-school principals and teachers. College preparation and maintaining high-school standards are easier goals than the more democratic ideal of providing for each high-school pupil that type of training best suited to his native ability and his character traits. The struggle is between the harsh doctrine of "the survival of the fittest" and the more humane doctrine which seeks to fit the child for his environment, or to so change the environment that each may have an opportunity to attain a measure of "complete living."

Allen claims that ability grouping in high school should produce the following results:[1]

(1) Prevent many failures; (2) prevent overworking of pupils who learn slowly but are conscientious and faithful; (3) adapt courses and methods to individual needs; (4) make courses more attractive for all pupils, bright, average and slow; (5) provide differentiated courses of study for bright and slow pupils; (6) make guidance in selection of electives much easier; and (7) prevent the formation of habits of failure on the one hand and of laziness on the other.

Methods of grouping high-school pupils according to ability have been previously discussed.[2] One of the greatest obstacles in the way of such grouping, even in the cases where the principals and teachers are in favor of the plan, is found to be the organization of the subject-matter for presentation to the rapid, medium, and slow groups. At the J. Sterling Morton High School, Cicero, Illinois,[3] such an arrangement of subject-matter has been successfully worked out for English, mathematics, shorthand, modern languages, auto theory, physics, and social science. The plan involves the setting-up of minimum essentials for slow group, regular prescription for middle group, and enrichment of work for high-ability sections. Enrichment, rather than speed for the high-ability group, is favored on account of the difficulty of securing college credit for high-school work accomplished in less than one year for each unit.

Other methods employed in the educational guidance of high-school pupils. A few of the other methods commonly employed may be briefly described:

[1] Allen, Richard D. *Op. cit.*, pp. 86 ff. Quoted by permission of the publishers, The California High School Teachers Association, Arthur H. Chamberlain, *Secretary*.

[2] See Chapter VI.

[3] Brogue, Arthur. "Differentiated Courses for Pupils of Superior Ability in the J. Sterling Morton High School"; in *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part I, pp. 366 ff.

(*a*) *The extra-study period.* This is employed in seventy-eight or forty-two per cent of the 187 high schools reporting to the Committeee of Fifteen.[1] In many cases this extra period is a sort of disciplinary device, and is called by the pupils in one high school "the pest house." The value of such a period for teaching habits of study, when imposed as a penalty for poor lessons, is very doubtful. Another high school reports an extra period, which comes for the forty-five minutes just preceding the opening of the morning session. All teachers are in their classrooms at this period prepared to give aid and counsel to students in their own classes.

(*b*) *Supervised study.* In some form this is claimed by 91, or 41.2 per cent of the high schools reporting to Hughes.[2] This is probably a higher percentage than would be found if high schools of all sizes were taken into the account. It is feasible, however, to have supervised study on the lengthened-period basis in a medium-sized high school. This has been demonstrated by the Snohomish, Washington, High School, which has had, since 1913, an eighty-minute period, divided into forty minutes for recitation and forty minutes for supervised study.[3] The double period plan was put into successful operation without the addition of a single extra teacher.

(*c*) *Guidance relating to educational plans beyond high school.* Ninety-four per cent of all the California high schools reporting claimed to provide means of counseling their students in relation to their future educational plans. In the large high schools this counseling is done by specially

[1] *Report of Committee of Fifteen,* California High School Teachers Association, pp. 110–11. San Francisco. 1923.

[2] Hughes, W. Hardin. "Provisions for Individual Differences in High Schools"; in *Journal of Educational Research,* vol. 5, pp. 62–71.

[3] Proctor, W. M. "Supervised Study on the Pacific Coast; a Survey"; in *School and Society,* vol. 6, pp. 326–28.

appointed advisers, who give all or a part of their time to the work; in the small and medium-sized high schools, educational guidance is most frequently in the hands of the principals and classroom teachers.

Results of an experiment in educational guidance of high-school pupils. A group of 107 pupils who entered the Palo Alto, California, Union High School [1] were given the individual mental tests after entering high school, and carefully followed up in their school work. They were already started on their high-school curricula at the time of being examined, and may therefore be called the "unguided" group. Another group of 22 entered high school in February, 1918, all of whom had been given both the individual and group mental tests while yet in the Eight-A grade. When these pupils entered the high school all the data regarding their elementary school records, their mental-test records, their vocational ambitions if any, their preferences for high-school subjects, and the estimates of their Eight-A teachers as to their ability were on cards and in the possession of the class adviser who had been assigned to them. They were carefully advised in making up their high-school program of studies by their class adviser and by the writer, who had given the tests and conducted the experiment. A comparison of the first year of high-school work done by the members of these two groups — that is, the 107 unguided and the 22 guided pupils — is shown in Table VII.

The most significant facts to be found in Table VII relate to the number of failures in one subject, and in two or more subjects. Of the "unguided" group, 30.8 per cent failed in one subject during their first year in high school, and 10.3 per cent of them failed in two or more subjects during that

[1] Proctor, W. M. *Psychological Tests and Guidance of High-School Pupils*, pp. 36–38. Public School Publishing Company, Bloomington, Illinois, 1923.

time. On the other hand, only 18.2 per cent of the "guided" group failed in one subject during their first high-school year and none of them failed in two or more subjects. A sixth-year check-up, made in 1923, indicated that the same

TABLE VII. COMPARISON OF "GUIDED" AND "UNGUIDED" GROUPS OF PALO ALTO UNION HIGH-SCHOOL PUPILS

CHARACTER OF GROUP	TOTAL NUMBER	Out at Work		Out, Transfer		Failed, 1 subject		Failed, 2 subjects	
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Guided.....	22	1	4.5	2	9.1	4	18.2	0	0.0
Unguided...	107	13	12.1	14	13.1	33	30.8	11	10.3

ratios with reference to elimination, failure, etc., between the two groups continued throughout their high-school careers. A direct relationship is thus observable between careful guidance and subsequent success in school work.

Attainable goals of educational guidance in senior high schools. Educational guidance in three- and four-year senior high schools undertakes to provide for a better adjustment of the pupil to his high-school and later educational environment by any or all of the following means:

1. *Pre-guidance.* Eighth-grade pupils of 8–4 plan schools, and ninth-grade pupils of 6–3–3 plan schools, are made acquainted with high-school opportunities and courses through visits made to their schools by representatives of the senior high schools, through letters written to themselves or their parents by superintendents and principals, and through "go-to-high-school-campaigns" engineered by counselors or directors of research and guidance.

2. *Improved instruction.* Ability grouping, with appropriate content and methods of teaching, for the various groups is coming to be employed by an increasing number of high schools. Grouping is based on mental tests, teachers' marks, achievement tests in elementary and secondary subjects, and social and physiological maturity. As an accompaniment of ability grouping there is a growing realization of the necessity for improving the quality of

high-school teaching. This in turn has resulted in focusing attention upon the neglect by high school principals of their supervisory function. Ability grouping, unaccompanied by improved instruction, is a snare and a delusion.

3. *Improved study habits.* Attention to educational guidance plans has brought about the employment of extra study periods, supervised study, study coaches, class advisers, house principals, etc. Observation of the study habits with a view to improvement has been greatly stimulated. High school hand books contain suggestive hints for improving study habits. Pupils are encouraged to adopt a regular schedule for school and home study, and the interest of parents for purposes of coöperation is enlisted. Methods of note-taking, and use of library for reading and reference purposes, are also stressed in the campaign for improved study habits.

4. *Wiser selection of subjects and curricula.* Another outcome of an effective program of educational guidance should be, on the part of the teachers, a better knowledge of the capacities, interests and ambitions of the pupils, hence sounder advice regarding subjects and curricula to be taken by the pupils; on the part of the pupils, better knowledge of the purpose of curricula and the value of subjects to them in the light of their life plans. In a high school where educational guidance on a scientific basis is available there will be fewer failures, because pupils will select their subjects more wisely, will have better study habits, and will bring to the mastery of their school tasks a higher degree of application.

5. *Enrichment of the program of studies.* An almost inevitable outcome of the application of educational guidance principles to a high school situation is the enrichment of the program of studies. As soon as tests and measurements, applied in the exploration of pupil abilities, have disclosed the marked differences in present ability to learn and future possibilities to absorb training, the necessity for different curricula to meet the needs of different ability groups becomes apparent. The elementary school is able to meet the problem of individual differences by providing for different rates of speed and by quantitative distinctions in the amounts of subject-matter to be taught to each ability group. But since the high school must take account of the different ultimate destinations, or life-career motives of its pupils, as well as their differences in native capacity, it must provide appropriate curricula to minister to these distinct needs. This means that unless a high school has three or four kinds of curricula to offer, which lead to distinct

fields of human effort, there is very little scope for that phase of educational guidance which has to do with choices of curricula. There is always, however, scope for that phase of educational guidance which has to do with improving study habits, progress in individual subjects, and the selection of after-high-school educational institutions.

There is not a high school in the country, worthy of the name, which cannot undertake some one phase of educational guidance and carry it out successfully. Effort along this line is always rewarding because it results not only in a better knowledge of the raw material upon which the high school has to work but also in a clearer conception of what it must do to turn out a better product. One successful experiment, such as that carried out with the Palo Alto Union High School entering pupils, will demonstrate the practical value of educational guidance and lead to the adoption of those features of an ideal program which are best suited to economic, social, and educational conditions prevailing in a given high school district.

QUESTIONS AND PROBLEMS

1. How would you proceed to discover the minimum essentials of an elementary program of studies?
2. Is the knowledge of a child's mental-test score apt to give a teacher an undesirable "mental set" with reference to that child? Why?
3. What precautions should a teacher observe to avoid falling into the possible error suggested in question 2, above?
4. What are the limitations of a one-room one-teacher school, so far as adequate educational guidance is concerned?
5. How would you proceed to find out whether the increased number of children in the ninth and tenth grades was the direct result of the guidance program of the city, or was due to some other factor?
6. How would you answer the argument that since the schools of fifty years ago got along very well without organized guidance, there is no need for such guidance at the present time?
7. What, if any, is the difference between a "try-out" course and a "pre-vocational" course, in the junior high school?
8. Under what circumstances might it be socially undesirable to "over-

sell" the high school to prospective graduates of the eighth grade, in an 8–4 school system?

9. What is wrong with the practice of transforming the "conference" period into a disciplinary period?
10. Is there any justification for the practice followed by some counselors of advising all boys of high intelligence to prepare for college, and all "below-average" boys to prepare for mechanical occupations?

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CHAPTER VIII

GUIDANCE IN SOCIAL AND CIVIC ACTIVITIES

I. The Social-Civic Aim of Education

Education as a preparation for community membership. The guidance function of education has not been fully carried out when the child has been assisted merely in the selection of subjects, courses of study, and curricula. He should also receive assistance in making the necessary adjustments in his social and civic relationships. Since the child already belongs to the neighborhood community, the school community, the village or city community, and the State and National community, his social-civic interests and activities may be said to have immediate significance. His citizenship privileges, rights, and duties, with relation to each of the communities to which he belongs, are such that they require specific training before they can be properly entered upon or performed. The Commission on the Reorganization of Secondary Education thus describes the equipment which the child needs to function as a citizen in these various communities to which he now belongs:[1]

> A many-sided interest in the welfare of the communities to which one belongs; loyalty to the ideals of civic righteousness; practical knowledge of social agencies and institutions; good judgment as to the means that will promote one social end without defeating others; and, as putting all of these into effect, habits of cordial coöperation in social undertakings.

The neighborhood, the town or city, the family, and the

[1] *Cardinal Principles of Secondary Education*, United States Bureau of Education, Bulletin (1918) no. 35, pp. 13. *Report of the Commission on Reorganization of Secondary Education*, National Education Association.

school communities are those in which he will have his first citizenship experiences, and in connection with which he will require guidance and training during childhood and early adolescence. The kind of citizenship he will later exemplify in State, National, and world relationships will be largely determined by the quality of the ideals, habits, and attitudes acquired as a result of home, school, neighborhood, and town contacts and training.

Specific training for community membership has become an absolute necessity in a modern, democratic nation. Not only is the ignorant and illiterate person more apt to become a public charge, on account of inability to cope with the complexities of modern industrial society, but he is also less able to participate intelligently in those duties of citizenship which must be assumed by a self-governing people. The menace to a democratic nation, implicit in the presence of large groups of illiterate native-born as well as still larger groups of foreign-born residents, is thus set forth by Cubberley:[1]

> As participation in the political life of nations has been extended to larger and larger groups of people, and as the problems of government have become more and more complex, the schools have found it necessary to add instruction in geography, history, government, and national ideals and culture to the earlier instruction. . . . As the social life of the nations has become broader and more complex, a longer period of guidance has become necessary to prepare the future citizens of the State for intelligent participation in it. . . . As large numbers of immigrants from distant lands have entered the leading nations, notably England and the United States, and particularly immigrants from less advanced nations where general education is not as yet common, and where far different political, social, judicial, and hygienic conditions prevail, a new duty has been thrust upon the school of giving to such incoming people, and their children, some conception of the meaning and methods and

[1] Cubberley, E. P. *The History of Education*, pp. 738, 739. Houghton Mifflin Company, Boston, 1920.

purpose of the national life of the people they have come among. . . . One result of the many political, social, and industrial changes of a century has been to evolve education into the great constructive tool of modern political society.

The extent of the menace of illiteracy can be appreciated when we realize that about six per cent [1] of our entire population are, from their own admissions to the census takers, absolutely illiterate. Again, about twenty-five per cent of the men taken in the draft were unable to read and write with a sufficient degree of facility to enable them to write letters to their home relatives. To be sure, the great bulk of these illiterates and "near" illiterates are found among our negro and foreign-born populations, but that fact does not alter the gravity of the situation. It simply means that a tremendous burden is placed upon our public schools to fight and eradicate illiteracy.

Education a preparation for social service. In addition to membership in the civic communities above described, each individual is a member of certain social groups. He belongs to a family group, and to various other social groups organized around different activities, such as play and recreation, æsthetic improvement, religious or ethical development, and the like. The careful planning of activities to develop suitable characteristics, habits, and attitudes in the social relations of life is just as necessary a part of one's education as the mastery of the technique of dealing with ideas, mechanisms, numbers, and symbols pertaining to the three R's. Membership in these social groups is not an exclusive privilege of adulthood, but belongs to the entire span of life. Neither is training for participation in the social relations of life an exclusive obligation of the school. Many of the most important habits, characteristics, and attitudes necessary

[1] National Education Association, *Research Bulletin*, vol. 1, no. 1 (1923), pp. 46–54.

for proper functioning in the social relationships are acquired in the home, on the playground, and in connection with the voluntary associations which one forms in becoming a member of the church, the club, the political party, or other social group.

In addition, however, to all the training for participation in social activities which we receive in the natural and voluntary social organizations to which we belong, there is need of organized, specific training along these lines, which can best be undertaken in connection with formal education in the schools. The State, which fosters public education, is interested in the cultivation of favorable social habits, because its very existence hinges on the ability of its citizens to work together — to coöperate in enterprises which have as their objective the welfare of all. Such coöperation does not just happen. It is dependent upon a number of factors which are at present largely under the control of the public schools. Before there can be unity of action in a Nation with a population of over one hundred million people, there must be a common basis of understanding and intercommunication — that is, a common language. There must also be a general appreciation of the fundamental principles underlying the political and social life of the Nation.[1] The only way to be sure that these factors will be adequately provided for is to make definite provision for the training of every child along these lines by the public schools.

National solidarity dependent upon social-civic training in the public schools. The world was amazed and our enemies were confounded, during the World War, by the powers of coöperative action displayed by the people of the United States. The selective draft was accomplished, millions of tons of food were conserved, bond drives were put

[1] Inglis, A. *Principles of Secondary Education*, pp. 369. Houghton Mifflin Company, Boston, 1918.

over, stupendous contributions were made to the Red Cross, and the entire Nation was aroused to a high pitch of emotional fervor in its support of our armies at the front, because the way had been prepared by generations of patriotic American school teachers. The foundations of a common language, an understanding of American institutions, and a loyalty to American ideals of family and social life had been well laid in the public schools; otherwise there could not have been such an impressive demonstration of the essential solidarity of our people. The Central Powers counted on resistance or even revolt on the part of the Germanic and Irish elements in our population. They could not conceive how such a polyglot people could be mobilized for effective action in a conflict three thousand miles from their own shores. They failed to realize the extent to which the American public school had succeeded in making of these diverse racial and national elements a new people, with new civic and social habits, attitudes, and ideals.

It is just because the experiences of the World War revealed to us the unlimited possibilities of a Nation capable of such unity of action, and also because certain weaknesses, due to the presence in our midst of unassimilated alien elements of population, were also revealed, that we are now keenly alive to the importance of civic and social training as an integral part of public education.

Not only are we interested in securing social solidarity as a guarantee of the survival of democratic institutions, but we are also interested in the promotion of good-will, mutual understanding, and the spirit of give-and-take or good sportsmanship among the various social, economic, and racial groups within our own population.[1] A nation may be perfectly capable of withstanding the assaults of enemies

[1] Parker, S. C. *Methods of Teaching in High Schools*, chap. II, pp. 10–23. Ginn & Co., Boston, 1920.

from without, and yet disintegrate through the development of dissensions, class divisions, economic inequalities, and sustained misunderstandings from within. Because of our peculiar geographical location, with its ideal facilities for defense from external invasion, it is conceivable that our greatest danger as a Nation is from within our own borders, rather than from an invading enemy.

To teach in our schools merely civic loyalty, and reverence for past glories and achievements or present power and wealth, is not enough. The rising generation is entitled to know, not only about the achievements which have made our Nation what it is, but to be instructed in the possibilities for improvement. The mere worshiping of a past, however worthy, of which China has been a warning example, spells stagnation. If internecine strife between Capital and Labor threatens economic stability; if class distinctions, based on wealth or social position, threaten to become permanent; if racial antagonisms, or religious bigotry, threaten to separate our people into warring factions; these are vital problems, the solution, or attempted solution, of which, must be undertaken by the pupils now in our schools when they enter upon the full duties of adulthood. If we expect them to make a better showing in their attack upon these problems than we of the generation now in control have made, we must see to it that they have definite training for the task. The preliminary stages of this training can best be given by the public schools.

What should be the outcome of the social-civic phases of public education? Training in the duties and privileges of citizenship, and in the art and spirit of social coöperation — the necessity for which has just been discussed — should have definite and measurable outcomes. It ought to be possible for school administrators to show that at each stage of educational progress — that is, at completion of elemen-

tary, junior high school, senior high school, or college courses — there has been a distinct advance in civic knowledge, habits, and attitudes over the preceding stage. Up to the present time very little attention has been given to the measurement of the social-civic outcomes of our training. We have proceeded on the assumption that what we were attempting to do was adequate along these lines, but the assumption has for the most part been based on a naïve faith rather than on any objective evidence. There has been lacking, until quite recently, any attempt, on the one hand, to analyze into their essential characteristics the fields of civic action, social coöperation, and social service, and, on the other hand, to measure the results of the efforts that are being made to provide adequate training along these lines.[1] Encouragement for the future is to be found in the progress that has been made by those who are attempting the task of adequate analysis.[2]

When the process of analysis has resulted in the setting-up of an adequate program of subject courses and allied activities, we should expect the correlated measurement technique to show that every child, before being permitted to leave school, has had experiences and instruction in what may be designated as the minimum essentials of a social-civic training. This training should include:

(1) A fund of factual knowledge and information regarding civic institutions, together with the essential activities involved in community life.

(2) A fund of factual knowledge and information regarding important social institutions and agencies, their interrelation and im-

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[1] Upton, S. M., and Chassell, C. F. "Scales for Measuring Habits of Good Citizenship"; in *Teachers College Record*, vol. 20, pp. 36–65; vol. 23, pp. 52–79.

[2] Bobbitt, Franklin. *How to Make a Curriculum*, chap. VII, pp. 97–128. Houghton Mifflin Company, Boston, 1924.

portance in the social order, and the possibility of their future progress and improvement.

(3) The organization of activities to be engaged in by pupils with a view to the cultivation of ideals and habits of conduct, as well as attitudes which are socially beneficial — such as coöperativeness, loyalty to high standards in public service, and a willingness to devote time, talent, and resources to socially beneficial enterprises.

II. The Guidance Values of the Social Studies

Community civics. The meaning and significance of community civics is thus stated in a publication of the United States Bureau of Education.[1]

> The aim of community civics is to help the child to know his community — not merely a lot of facts about it, but the meaning of his community life, what it does for him and how it does it, what the community has a right to expect from him, and how he may fulfill his obligation, meanwhile cultivating in him the essential qualities and habits of good citizenship.

Community civics is the logical beginning-point of the social studies, because the child here first comes in contact with the local community, and is more easily made conscious of his membership in it and of the contribution which he can make by active participation in community affairs. From the local community, as a starting-point, it is possible to enlarge gradually the child's social and civic horizon so that it will include the State, the Nation, and the world at large.

If the community-civics course is to result in social and civic guidance values,[2] there must be a reversal of the attitude often taken toward conventional civic instruction. The latter has generally proceeded on the assumption that

[1] *Social Studies in Secondary Education*, pp. 23. United States Bureau of Education, Bulletin (1916) no. 28.

[2] Thomas-Tyndal, E., V., and Myers, J. D. *Junior High School Life*, chap. VIII, on "Civic Guidance," pp. 85–91. The Macmillan Company. New York, 1924.

cold-storage information, relating to State and National Governments, would later on work itself out into better citizenship. The actual outcome, in too many cases, has been a dislike for the subject and a widespread indifference to civic and political affairs. In 1920, in California, only forty-eight per cent of the registered voters cast their ballots in the presidential election. In 1924, following a rigorous effort to get out the voters only fifty-four per cent of them registered their preferences at the poles. The method of approach to the subject of community civics in our schools in the past may justly be charged with a part, at least, of the responsibility for such a disregard of civic duties. Adult good citizenship is most apt to be attained if, during the child's progress through the schools, desirable habits of civic and social conduct, and right attitudes toward civic and social duties, are developed directly in connection with school and community situations.

The course in community civics must start on the assumption that the pupil is a young citizen, with real and immediate interests at stake. There is a wealth of material for such a course.[1] Such matters as health, protection of life and property, recreation, education, local occupations, and the economic resources of the community are topics which lend themselves to appropriate treatment in the classroom. It is also possible to work out practice situations for the development of desirable civic habits and attitudes by enlisting the coöperation of junior citizens in various phases of community life. Participation by the young citizen in an effort to eliminate disease-breeding conditions and to prevent the spreading of contagion in the community helps to vitalize the subject, and to make it of immediate personal value to the children, as well as to the school and the local com-

[1] Thomas-Tyndal, E. V., and Myers, J. D. *Op. cit.*, pp. 85–91, and chap. VI, pp. 61–72.

munity. The same may be said of the other topics suggested.

The principles to be stressed in the conduct of a course of study in community civics should be:

(1) The material to be utilized should be related to the needs and conditions of the community in which the course is given.

(2) The various elements of the course, whether health, civic beauty, recreation, or protection of life and property, should be so treated as to result in definitely improved habits — *first*, habits of the individual in his personal life, and *second*, habits of the individual in his social and community relationships.

(3) The method of teaching employed should be inductive. By "inductive" we mean that the teacher should act as guide and encourage the class to contribute facts from their own experience, and also facts gathered by themselves from persons, books, or other sources; to employ their own reasoning powers in forming judgments and reaching conclusions; and to discover some practical method of putting conclusions reached or principles deduced into immediate use in real social and civic situations.[1]

Elementary political science. Supplementing community civics there should be a course of study devoted to political civics, or elementary political science. It would be a mistake if the reaction against the conventional course in civics prompted an omission of adequate study of National community life and National community relations. The just ground for the reaction that is taking place lies in the fact that the mechanical phases of State and National Governmental machinery were stressed to the neglect of the more intimate and vital matters of community life. If, however, we have laid well the foundations of civic habits and attitudes in our course in community civics, it is desirable to continue the same line of training, employing a wider range of interests and activities, in order to embrace

[1] *The Teaching of Community Civics*, pp. 9–54. United States Bureau of Education, Bulletin (1915) no. 23.

State and National, as well as local concerns. Health, recreation, education, and protection of life and property have State and National aspects; hence the interest aroused in these topics through the course in community civics can be made to carry over into a course in elementary political science, where the wider applications of the same principles could be studied.

Elementary economics. Social and political questions are so closely bound up with economic questions that all intelligent citizens are in need of training in at least the elementary principles of economics. The proper foundation for this course should be laid in the elementary grades, through properly organized courses in geography and occupational information. A course, known as "Elementary Economics," may well be introduced into the secondary schools. The essential elements of such a course are frequently included under the name of "Occupational Civics." The aim of the course should be to acquaint the pupils with the fundamental laws of economics as these are related to the fields of food production, production of raw materials, the manufacture and transportation of finished products, and the sale, distribution, and consumption of these products.

Opportunity for first-hand participation in economic activities may be provided through the organization of school savings banks, the conduct of coöperative enterprises involving the raising and marketing of agricultural products, the making of furniture or other articles in the school shops for sale under conditions of trade competition, or the management of various school projects which involve responsibility for the handling of and accounting for money.

The relation between government and economic welfare should likewise be stressed. Such questions as the importance of good roads to the farmer, of adequate transportation facilities to the manufacturer and the merchant, of

geographical distribution of population and the economic reasons therefor, can be interestingly discussed. What engineering is accomplishing in the way of utilization of waste products, how medical science is promoting economic efficiency by keeping up the standards of health, and how profit-sharing and shop representation on governing boards work out as means of promoting industrial peace — these and many other live problems can be made use of in preparing the young citizen for his own niche in the economic order.

The course in elementary economics should not only result in a better knowledge of economic laws, and of the practical working-out and interplay of economic forces in the world of industry and commerce, but it should give a distinct impression of the interdependence of different economic groups. The farmer cannot get his produce to market, nor can the merchant or the manufacturer reach their customers, when the transportation system breaks down through inefficiency or is tied up on account of a strike. If some basic industry is suspended, such as the mining of coal, millions of men in other occupations are thrown out of employment and must remain in idleness until coal is mined and brought to the furnaces of their mills. A widespread depression in agriculture is reflected in a slowing-down in those industries dependent for prosperity upon the farmer's purchasing power. Thus is economic solidarity seen to be closely intertwined with social and political solidarity. Hence the necessity for training in the "other regarding" or altruistic attitude of those who by their collective action, either as voters in political elections or as members of an organization of workers, have the determination of policies which may affect favorably or adversely the lives and fortunes of thousands of their fellow citizens.

Problems of American democracy. Instead of offering

the two courses just previously outlined, "Elementary Political Science" and "Elementary Economics," a combination course under the title, "Problems of American Democracy," [1] would be preferable in all but the larger high schools. Such a course would presuppose the course in community civics, and a course in history organized along the lines to be outlined in the following section. It would be given ordinarily in the senior high-school year.

Such a course would be organized about the salient problems which engage the attention of the American people at any given time. These problems should be discussed from the standpoint of their political, sociological, and economic bearings. Practice in the gathering of material from every available source, in organizing this material for purposes of presentation to the group, in fair-minded and dispassionate discussion of the issues involved, and in the formation of personal judgments and opinions, should be given.

The fact that most of the problems worthy of being considered in the course would be subjects of partisan controversy in State and Nation would make tactful management a prime necessity. But this fact should not discourage or deter. Rather it should encourage those interested in the development of the course because of the availability of live material. Not the least valuable outcome of the course would be the opportunity that it would give for training in orderly discussion of controversial questions, in self-restraint, and in the exercise of tolerance for the opinions of others. In addition to training in the art of orderly discussion, there would also be developed the power of constructive criticism of governmental policies, and this in turn would tend to incite to active participation in political movements.

History and biography. Twenty years ago history was

[1] United States Bureau of Education, Bulletin (1916) no. 28; *op. cit.*, pp. 52–56.

the only social study in the secondary program. Usually four units were offered — ancient, mediæval and modern, English, and American. The method of treatment was essentially chronological, and the content was for the most part political.[1] Efforts to reorganize the course of study in history are now directed at a change in the method of treatment from the chronological to the topical, and of content from the exclusively political to the inclusively social, economic, and political.

This new attitude toward the course of study in history means not only that a movement for the rewriting of history textbooks for elementary and secondary schools is on foot, but that the training of history and social-science teachers must include practice in the topical method of treatment, with its attendant necessity for skill in selecting material which not only has social significance, but which is also related to the present life-interests and processes of growth of the child.[2]

The outcome of the proper organization and teaching of history should be the promotion of National solidarity through a better understanding of the fundamental institutions, social customs, and moral and ethical traditions which go to make up the warp and woof of the National life. A knowledge of the contributions that other nations have made, either in racial stocks, social and religious customs, or political and economic ideas, will tend to give a broader and a more sympathetic world outlook and help to promote international comity. Individual incentive to worthy endeavor may also be expected to result from an intimate study of the lives of those at home or abroad, during the present or past ages, who have nobly wrought or greatly

[1] Robinson, James Harvey, *The New History*, pp. 136, 137. The Macmillan Company, New York, 1922.

[2] Robinson, James Harvey. *Op. cit.*, pp. 138, 139.

achieved. The new viewpoint in history teaching, with its emphasis upon the personal needs of the pupil and the social significance of the material selected for treatment, very materially increases the guidance value of the subject.

III. The Guidance Values of Social-Civic Activities

Pupil-participation in school government.[1] A well-planned and well-carried-out course of study in the social subjects will do much to prepare young people for their duties as citizens. It is necessary, however, to provide opportunity for participation in social-civic situations and organizations, in order that habits may be established which will carry over into after-school life. Pupil participation in school government has been found to be a worthwhile experiment along that line. Such participation has been frequently miscalled "self-government," when in reality it was nothing of the sort. Teacher or principal reserved the right to override or annul any enactment of the student congress or council, and when such annulment took place the nature of the fiction was evident, and the parties to the undertaking usually tired of the experiment, dubbing it a complete failure.

Where the school is thought of in its true light as constituting a social-civic community within itself, it is possible to organize on a basis which includes all of the interested parties — that is, principal, teachers, and pupils.[2] In the very nature of the case there are certain matters that should remain outside the jurisdiction of such an organization — matters for which the school board, the principal, and the teachers are directly responsible to the public. But all

[1] Pechstein, L. A., and McGregor, A. L. *The Psychology of the Junior High-School Pupil*, chap. xviii, pp. 213–19. Houghton Mifflin Company, Boston, 1924.

[2] Gosling, T. W. "A High-School Program for Training in Citizenship": in *School Review*, vol. 28, pp. 57–65.

matters in which the coöperation of the students is essential for complete success may properly be made the objectives around which the school-government plan is evolved.

That plan which is developed slowly and in response to felt needs, and in which the suggestions for change or improvement come, or seem to come, from the pupils themselves, will be the most effective as well as the most enduring.[1] Schemes that are all worked out in minutest detail in the principal's office and then imposed upon the student body by "imperial ukase," are generally of short duration. Democracy is first of all experimental, educative. It learns best by its own errors, and it is through practice in working out solutions to concrete situations that student governmental participation brings its best results. It is in connection with student affairs, care of buildings and grounds, management of coöperative enterprises in conjunction with civic organizations, etc., that the democratic type of school management functions to best advantage.

Student clubs and societies.[2] Valuable practice in the habits and virtues of citizenship may be gained through membership in student clubs and societies. Initiative, resourcefulness, and energy are required of the leaders of these clubs, and because they appeal to a great variety of interests, they tend to bring out qualities in pupils which would otherwise remain undiscovered and undeveloped. Teacher supervision may be desirable, and each such organization should have an adult sponsor, but it is a fatal mistake for such sponsor to assume the leadership, do the thinking and planning, and encourage the rank and file of the members of the club to become mere rubber stamps or "me-too" followers.

[1] Bradley, J. H. "Practicing Citizenship in Lindsay High School"; in *Educational Administration and Supervision*, vol. 9, pp. 120–24.

[2] Dement, Alice L. "Values in Extra-Curricular Activities"; in *School Review*, vol. 32, pp. 40–48.

Among the most important clubs, from the social-civic point of view, will be the debating and dramatic clubs which train the boys and girls in powers of expression.[1] The debating clubs will be found to be capable of close affiliation with the department of social sciences, and the necessity for securing material on social and civic questions will help to motivate their studies of civics, economics, sociology, and history. The dramatic clubs, in addition to the presentation of current or classical dramatic productions, can be utilized in the staging of historic pageants, which have been found to be very effective as a means of motivating historic study.

School papers and other publications.[2] The press has become one of the greatest social-civic agencies in society at large. School papers and publications may be made to exert an analogous influence within the school. Not only is there the literary and business experience to be gained from editing and managing a school paper, but there is the opportunity afforded to influence school opinion for or against measures of policy which come before the student assembly or council. Likewise school traditions, school loyalty, and every other phase of school citizenship may be influenced by the school paper.

Next to the school paper in social-civic influence is the "student handbook." This publication is designed to collect and put into brief compass the things about the school life which all pupils should know and understand. A few topics treated in a high school handbook will be suggestive of the possibilities of such a publication:[3]

[1] Stowe, A. Monroe. "Student Debating Activities"; chap. XVIII, pp. 463–83, in *The Modern High School*, by Johnston and others. Chas. Scribners Sons, New York, 1914.

[2] Huff, Bessie M. *How to Publish a School Paper*, pp. 1–19. Mentzer, Bush & Co., New York, 1924.

[3] *Student Hand Book*, Union High School, Salinas, California, 1922-23.

School songs and cheers; list of faculty members and their rooms; list of student-body officers; hints on how to study and keep fit — sixteen hints on study habits, suggestions for securing proper amount of rest and physical exercise; how to use the library; hints on conduct — on school grounds, in corridors, in classrooms, in assemblies and study-halls; relation of students to class meetings, student-body meetings, school societies and interschool contests; suggestions relating to good sportsmanship, both as participant and onlooker; quotations from school law relating to absences and tardinesses, excuses, and moral conduct; outline of principles governing student self-government, various honors, and the meritorious citizenship award.

As in the case of other student enterprises, the less conspicuous any teacher sponsorship or supervision is, the better it will be. Sympathetic interest and readiness to make helpful suggestions should mark the attitude of the teacher advisers. The cardinal principle of guidance here as elsewhere must be assistance toward self-help and self-direction, rather than dictation or rigid censorship.

Citizenship award. A method of promoting social-civic habits and attitudes among high-school pupils, which has been found to be effective, is the citizenship award. A Citizenship Honor Roll is maintained on which are placed the names of all pupils who earn a certain number of citizenship honor points each semester. One member of each graduating class is elected by the student body to receive the Meritorious Citizenship Award. The distinction of receiving this Citizenship Award may be earned by the student who makes the highest number of points during his or her high-school life, and who is recommended for the honor by the board of judges, which is usually made up of the principal, two teachers, and four members of the student body. The one receiving the award each year has his name engraved upon the Citizenship Cup. Following are the items considered in making the award:[1]

[1] From plan in operation in Owens Valley Union High School, Independence, California.

1. *Physical efficiency.* This is judged on the basis of making one or more school teams; correcting physical defects; a high mark in athletic exercises; knowing and practicing health regimen as to diet, sleep, and other hygienic matters.
2. *Social efficiency.* This involves membership in accredited school clubs, with record of attendance and participation in activities; leadership or service in connection with committees handling social affairs; helpfulness of a definite nature volunteered to teachers; responsible part taken in school entertainments; furtherance of social standards and ideals of the school.
3. *Mental efficiency.* To be rated as mentally efficient the student must have an average rating of better than 3 on a 5-point scale, with no mark below 3; a mark of 2 or better on a 5-point scale for mental alertness and self-control; a rating of 2 or better in studiousness; having contributions accepted by the school paper; having suggestions adopted relating to class cheers or school slogans; or for writing the class song or the class poem.

It is possible to earn from 40 to 75 points per semester in physical efficiency, from 60 to 155 in social efficiency, and from 40 to 110 points in mental efficiency. All who earn a total of 135 points in any semester have their names placed on the Citizen Honor Roll.

Outside organizations made up of school pupils. There are many outside organizations, made up almost entirely of school pupils, which give excellent training and guidance in the best habits and ideals of citizenship. Among these may be mentioned the Boy and Girl Scout organizations,[1] the Junior Red Cross, and the Junior Citizenship League. If such organizations are open to all children, age-limits alone being fixed, the public schools can afford to coöperate with them in every way. Training courses for Scout Masters are

[1] Barclay, Lorne W. *The Educational Work of the Boy Scouts,* United States Bureau of Education, Bulletin (1921) no. 41, pp. 1–10; see also, Bryant, Louise S., *The Educational Work of the Girl Scouts,* United States Bureau of Education, Bulletin (1921) no. 46, pp. 1–14.

being offered in schools of education and teachers colleges, and in many cities provisions are being made in new buildings for special rooms where these and other community organizations can hold their meetings. This is a wise policy, because it not only promotes community interest in the public schools, but it is at the same time a practical means of furthering the social-civic principles in which both the community and the school are vitally concerned.

Social-civic guidance requires coöperation of various agencies. The social-civic activities of life cover so wide a variety of fields that no single agency can be charged with the entire task of making preparation for them. It is certain, however, that the public school can do much to supply basic information and to give training in habits and attitudes essential to good citizenship. The social studies should be reorganized to supply the requisite information; and the necessary habits and attitudes should be cultivated in connection with regular classroom work, student participation in school government, in the organization and promotion of school clubs, societies, and associations, and in the editing and managing of school publications.[1]

Those responsible for guidance in the school will have in mind specific social-civic objectives, and will undertake to utilize all the available agencies, in and out of school, to promote standards of school citizenship which shall later function as ideals and habits of adult citizenship.

QUESTIONS AND PROBLEMS

1. Why is the Congress of the United States inclined to give preference to immigrants from Northern Europe? Is it a sound policy?
2. In a political campaign in Chicago, the Municipal Voters' League was compelled to rent space in seventeen different foreign-language newspapers in order to reach the voters of a single ward. What are the social and political implications of such a situation?

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[1] Davis, C. O. "Training for Citizenship in the North Central Association"; in *School Review*, vol. 28, pp. 279–82.

3. Does free public education imply any obligation on the part of every citizen to dedicate a portion of his time and energy to public service? How is it possible to cultivate such an attitude?
4. Discuss the action of a City Library Commission in a certain American municipality, which banned the historical writings of Albert Bushnell Hart on the ground that his treatment of the American Revolution was pro-British.
5. Outline a syllabus for teaching Community Civics.
6. Outline a syllabus for teaching Vocational Civics.
7. Is it possible to adjust the commission form of government to the problem of student participation in school government?
8. What general principles should govern the discussion of political and economic problems in high school classes?
9. Should a faculty representative always have control of the financial affairs of student organizations?
10. The custodian of the voting machines in a large city loaned two of the devices to a high school for carrying out a student-body election. Suggest other ways in which civic authorities might coöperate in citizenship projects.
11. A juvenile court judge of long experience says that no Boy Scout has ever been brought into his court as a delinquent. Do you believe that that judge's experience is typical? If so, how do you account for the situation?

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*United States Bureau of Education, Bulletins (1915) no. 23, *The Teaching of Community Civics;* (1916) no. 28, *Social Studies in Secondary Education;* (1918) no. 35, *Cardinal Principles of Secondary Education;* (1923) no. 23, *The Social Studies in Civic Education.*

CHAPTER IX

GUIDANCE IN HEALTH AND PHYSICAL ACTIVITIES

I. Health Education and Guidance

Conservation of health a fundamental objective. In spite of all the progress that has been made in medical science, health conservation, and sanitation, during the past one hundred years, there yet remains a formidable dark continent of ignorance [1] and indifference to be explored and reclaimed. As Terman puts it: [2]

> Among the masses of people, however, there remains a vast amount of ignorance with regard to matters of health and disease. The daring researches of a few score bacteriologists are more than offset by the thousands of people who still use liverwort for jaundice because of the fancied resemblance of its leaf to the human liver; by the tens of thousands who treat infectious diseases by suggestion; by the millions who spend hard-earned money for patented consumption-cures. Popular notions regarding personal hygiene are little better than a seething welter of ignorance and superstition, not all of which is confined to those who are confessedly uneducated.

The truth is that the science of health conservation is at present far in advance of the practical application of its principles to and in the daily lives of the mass of our people. The greatest present need is for the education of young and old in the known principles of sanitation, hygiene, and health, because one untrained or backward community may become the source of contamination for a large number of

[1] Fisher, Irving. *Report on National Vitality*, pp. 138, Bulletin no. 30 of the Committee on National Health, 1909.

[2] Terman, L. M. *The Hygiene of the School Child*, p. 3. Houghton Mifflin Company, Boston, 1914.

other communities. The greatest single agency for carrying out a National program in the matter of health conservation is the public school. Health regulations without health enlightenment are exceedingly difficult of enforcement. One public school teacher, spreading the gospel of health among her pupils, is worth ten sanitary inspectors attempting to enforce the regulations of the Board of Health.

The administrative personnel for health education and guidance. Four persons are of importance here, as follows: [1]

(*a*) *The school physician.* At least once each year, and preferably twice, every pupil in the school system should have a physical examination by the regular school physician, or by some competent person, employed on a part-time basis, to perform such service. The objectives of this examination should be the discovery of the potential causes of poor health or physical inefficiency. Occasional clinics, where the children having premonitory symptoms of tuberculosis, or other chronic ailments, could be examined and advised by experts, should be held. All the data resulting from these examinations should be recorded in such a way as to make them available for the use of physical directors, school nurses, etc.

(*b*) *The school dentist.* The preservation of the teeth has so much to do with general health that a school dentist is equally important with a school physician. No community, supporting a school, should omit dental supervision from its health program, since lack of expert attention to care and preservation of the teeth in childhood lays the foundation for so many ills in later life. Ordinarily the school physician and the school dentist will confine their labors to diagnosis, leaving treatment to the family physician and the family dentist. There will be cases, though, where poverty in the

[1] Hetherington, C. W. *School Program in Physical Education*, part III, sec. 3, pp. 105–22. World Book Company, Yonkers, 1922.

home precludes proper dental and medical attention, and the community owes to the children from such homes the service of free clinics. This should not be thought of as charity, but as health and efficiency insurance from which the community will ultimately derive as much benefit as the individuals themselves.[1]

(*c*) *The school nurse.*[2] The school nurse has become an essential feature of any effective health program. In large school systems the school nurses usually are attached to the health department of the schools and are under the direction of the Chief Health Director. In medium-sized cities the school nurse is frequently an employee of the city health department as well as the public schools. Such a combination makes it possible to secure the services of well-trained nurses. It is even possible to carry out an effective health program in the schools where employment of physicians and dentists is on the part-time basis only, provided the school has a full-time nurse for school inspection and home visiting.[3] The well-trained nurse, being constantly on the ground, is able to forestall epidemics of contagious disease by early detection of incipient cases. She also renders most valuable service through her home visiting. Principles and practices in home hygiene, care of children, etc., are taught by her directly to those who need it most — the mothers of the children from the foreign and poorer class of homes.

(*d*) *The classroom teacher.* Unfortunately, teachers have little to say about the school plant in which they must teach. They cannot alter the fixed physical characteristics of the building, no matter how inimical to health of both children

[1] Rapeer, L. W. *Educational Hygiene*, chaps. I, VIII, XII to XV. Charles Scribner's Sons, New York, 1915.

[2] Keely, Helen. *A Handbook for School Nurses*, chaps. I, III, and IV. The Macmillan Company, New York, 1918.

[3] Hoag, E. B., and Terman, L. M. *Health Work in the Schools*, chap. IV, pp. 48 ff. Houghton Mifflin Company, Boston, 1914.

and teachers they may be. The teacher is capable, however, of becoming familiar with the laws and principles of health conservation. Since she is in more constant and closer attendance upon the pupils than any other person in the school organization, her opportunity for service to them is greatest. She should have specific training for this phase of her work, not only in order that she may coöperate more intelligently with the school physician, dentist, and nurse, but also that, in the absence of these specialists, she may be able to carry out a practical program of instruction in health principles and hygienic habits.[1] The guidance along these lines which she is able to give her pupils may well be counted among the greatest opportunities for service which the teacher enjoys.

Courses of study relating to health and hygiene. These are three in number, as follows:

(*a*) *General physiology and hygiene.* Provision is made for general physiology and hygiene in most schools, but all too often the emphasis in physiology has been put upon dry details of anatomy, and upon some such special theme as the effect of alcohol upon the human body in hygiene. The greatest need is for training in health habits, for concrete performance; the least need is for discussion of abstract theories of disease origin or anatomical structure. During the first six grades effort should be concentrated upon establishing habits of cleanliness as to person and clothes, deep breathing and sleeping in well-ventilated bedrooms, proper habits of eating both as to method and diet, habits regarding daily elimination of bodily waste materials, habits relating to care of mouth and teeth, and also habits of coöperation in community enterprises for the conservation of health. In the seventh and eighth grades and the high school more attention may be given to specific courses, but the emphasis

[1] Hoag, E. B., and Terman, L. M. *Op. cit.*, chap. v, pp 62 ff., on the health grading of school children by teachers.

should always be upon the practical bearing of the subjects studied upon personal or community health.

(*b*) *Sex hygiene.* The moral bearing of sex is discussed in Chapter XI, and also the dangers involved in ill-advised attempts at sex instruction. The health aspects of sex instruction are of equal importance with the moral. Neither aspect should be neglected. Between the ages of twelve and sixteen, especially, timely instruction in the health aspects of sex hygiene may avert physical disaster. Thus Hoag and Terman say:[1]

> More special sex instruction at this period is also of prime importance. Well before the phenomena of puberty make their appearance, both boys and girls should know the natural developments that may be expected and their appropriate hygiene. It is shameful and inexcusable that so large a proportion of children reach maturity without any such instruction whatever.

The success of sex instruction will depend upon the extent to which it is made an integral part of the whole process of physiological and biological instruction. The kind of instruction and practical advice most needed by adolescents at this period can best be given in connection with physical education classes by men instructors for the boys and women instructors for the girls, or by men and women physicians in special lectures to segregated groups. Parents should also be instructed in the best methods of imparting sex information to their children.

(*c*) *Mental hygiene.*[2] Just as many of the physical ills of childhood may be traced to deficiencies in the school plant and the prevailing sedentary routine of the schools, so many of their mental ills are brought on or aggravated by the

[1] Hoag, E. B., and Terman, L. M. *Op. cit.*, chap. XVI, on education with reference to sex, pp. 252 ff. (quotation from page 265).

[2] Gates, Arthur I. "The Nature and Educational Significance of Physical Status, etc."; in *Journal of Educational Psychology*, vol. 15, pp. 329–58.

methods of teaching and discipline to which they are subjected. Such mental disorders as psychasthenia, neurasthenia, hysteria, dementia præcox, chorea, habit-spasms, etc., are more common than is generally suspected, and while frequently due to an hereditary predisposition, are capable of cure or reasonable control if the proper mental hygiene is applied when the symptomatic manifestations first occur.[1] It is on this account that teachers should have a working knowledge of this phase of psychology. Without this knowledge and practical training in its application to the conditions encountered in the schoolroom, measures of discipline or methods of teaching may result in fixing as permanent habits certain nervous reactions, or in causing a mental disorder, which otherwise might be controlled, to pass into the stage of positive insanity.

There is no purpose here to advocate the idea that teachers should become experts in psycho-analysis and mental therapy, but they should know enough concerning the general principles of preventive mental hygiene to cultivate the positive attitude in their teaching methods, rather than the negative.[2] Any teacher can prove by trial that expression is better than repression; that helping a child to discover the things in which he can succeed is better than constantly reminding him of his failures; that an atmosphere of cheerfulness is more stimulating to mental effort than an atmosphere of nagging and fault-finding; and that the best antidote for wriggling and fidgeting is not a sharp reprimand, but the employment of the fidgeter at some task requiring physical activity or interested mental preoccupation.

In connection, also, with the teaching of general hygiene

[1] Pechstein, L. A., and McGregor, A. L. *The Psychology of the Junior High-School Pupil*, chap. XI, on pathology of adolescent mentality, pp. 135–45. Houghton Mifflin Company, Boston, 1924.

[2] Irwin, E. A., and Marks, E. G. *Fitting the School to the Child*, p. 299. The Macmillan Company, New York, 1924.

in the upper grades and of biology in the high school, there will be presented many fruitful opportunities to emphasize the fundamental principles of applied mental hygiene, such as the influence upon health and bodily vigor of favorable states of mind; the value of coöperative social activities in overcoming tendencies to morbidity and solitude; the importance of attacking vigorously the task of forming a new and desirable habit; likewise, the necessity of translating impulses to altruistic action into concrete acts of kindness and helpfulness. Such a cultivation of the spirit of cheerfulness, faith in one's ability to achieve, and desire for helpful service to others will not only tend to build up bodily resistance against physical ills, but will prove to be the best possible insurance against mental disorders of all kinds. Thus may one ounce of healthy-minded teaching become more effective in promoting health and sanity than a ton of negative warning.

An altered routine for the entire school system. The final item in a health and hygiene program for the schools must be a radical change in the conventional routine of the school system from first grade to twelfth grade, but more particularly from the fourth grade up. Instead of six hours a day spent in a sitting posture at a desk fastened to the floor, and compelled to remain unnaturally quiet and inactive, the pupil should have at least half of each day devoted to physical activity — to learning by doing.[1] Since we compel children to attend school, we are in honor bound to see that they are not physically handicapped for the battle of life by the routine which we force upon them. Experiments, born of the necessity for accommodating twice as many children as there were stationary desks to seat

[1] Dewey, John. *The Schools of To-Morrow*, "The Reorganization of the Curriculum," chap. IV, pp. 60–102. (Classical statement of the doctrine of learning by doing.) E. P. Dutton & Co., New York, 1915.

them in, have demonstrated that the minimum academic essentials can be taught in half a day. Why should not the lesson thus learned be universally applied? Winnetka, Illinois, under the plan of individual instruction, finds that half a day is ample for the so-called academic subjects, leaving the other half for group activities of a socializing nature, for hand-work, physical education, and recreative projects.[1] Gary, Indiana, working along different lines, has demonstrated the possibility of devoting half of the time to other than "chained-to-the-desk" exercises.

There is a dawning hope that a school tradition which has resisted common-sense and philosophy will yield to economic necessity. The mounting costs of school buildings and equipment may compel the abandonment of the policy of holding all children to desk work for the entire school day. Coupled with that development in the situation is the trying out of numerous experiments with individual instruction, work-study-play, ability grouping, and other plans for changing the existing routine to one more in line with both the mental and physical make-up of the child. However, health-and-hygiene guidance and instruction must not wait for ideal conditions, but must seek to lessen the evil effects of present conditions while hoping and working for a better day. Work, without faith, is blind drudgery. Faith, without work, is lame idealism. Faith and work combined, both see and make progress toward the desired goal.

II. Physical Education and Guidance

Need of a revival of the Greek ideal in physical education. It is one of the strange anomalies of modern education that the so-called classical tradition has saddled us with a form

[1] Washburne, C. W. "Individual Instruction in Winnetka"; in *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part I, p. 247.

of training which ignores practically every one of the cardinal principles of the Athenian education. With the Athenians, reading and literature were taught "so as to appeal to the emotions and stir the will along moral and civic lines," and as a medium for artistic expression. With us the emphasis is upon the dry bones of grammar, or upon the logical analysis and dissection of literary treasures, to the point which makes them forever distasteful to our youth. The Athenians taught no foreign language, but our adolescents, who aspire to more than an elementary schooling, are often required to spend from one third to one half of their school time in the mastery of ancient or modern tongues which they will never use, and in which not more than five per cent of them will ever attain even passable proficiency. Our children from eight to sixteen spend six hours per day in sitting at desks, for the most part studying out of books or reciting, with possibly two fifteen-minute recesses for undirected play. The Greek boys devoted fully one half of their time to sports and games under trained teachers: Cubberley thus characterizes this phase of Greek education: [1]

> The work began gradually, but by fifteen had taken precedence over other studies. As in music, harmonious physical development and moral ends were held to be of fundamental importance. The standards of success were far from our modern standards. To win the game was of little significance; the important thing was to do the part gracefully and, for the person concerned, well. To attain to a graceful and dignified carriage of the body, good physical health, perfect control of the temper, and to develop quickness of perception, self-possession, ease, and skill in the games were the aims — not mere strength and athletic prowess. Only a few were allowed to train for participation in the Olympian games.

It is true that education in Athens was for the boys of the top ten per cent of the population only, and that their train-

[1] Cubberley, E. P. *The History of Education*, p. 32. Houghton Mifflin Company, Boston, 1920

ing was designed to fit them for the art of government and for a life of leisure devoted to the expression of their emotions in pleasing form, while we are undertaking a program of universal education, designed to fit our children for lives of activity and in which vocation looms large. Nevertheless, it is becoming more and more apparent that we have made our educational system topheavy on the side of learning *about things*, and have been paying too little attention to experience in *doing things* which call for physical activity and develop bodily grace as well as mental grasp. If, as heretofore suggested, it is possible to master all the essentials of academic learning by devoting one half of the school day to learning about things, the other one half of each school day could well be devoted to physical education and avocational pursuits. In this way the Athenian idea of symmetrical development — of a sound mind in a sound body — could be adapted to the needs of a democratic people, living in an industrial age and cherishing ideals of social well-being in addition to its ideals of individual achievement.

The elementary school and physical education.[1] It is safe to say that less attention to physical education is given in American elementary schools than in American secondary schools. In the kindergarten and the first two grades, however, there is considerable attention to supervised or directed play, greater freedom is permitted for bodily movement, and "busy-work" as an outlet for restless energy is more often provided. Beginning, sometimes with the third and sometimes with the fourth grade, it is assumed that children have acquired enough self-control to apply themselves for sustained periods to desk work. There are changes of posture incident to recitation periods, and some freedom of

[1] Hetherington, C. W. *A School Program in Physical Education*, part III, sec. 1, pp. 53–86. The World Book Company, Yonkers, New York, 1923.

movement is permitted. Occasionally a teacher is found who at stated intervals causes the windows to be opened and has the pupils engage in brief calisthenic exercises. Ten- or fifteen-minute recesses are generally included in the routine, morning and afternoon, but these do not permit of much in the way of directed play or systematic training. Supervisors of physical education are provided in some cities who visit each room once or twice a week, and give from fifteen to thirty minutes of formal drill, usually in the nature of "setting-up" exercises.

All of this is far better than nothing, but at best it amounts only to a makeshift. Philanthropy and public interest have supplemented to a certain extent the meager attention paid to physical development by the public schools, by the provision of public playgrounds with trained and paid supervisors. But when all the agencies now at work are combined their efforts do not adequately meet the demand. First, because the overemphasis upon academic subjects leaves too little time for physical training and exercise. Second, because the time that is given is spent too largely in a haphazard fashion in aimless running about, or just looking on while others play.

At least one fourth of the school day should be given to physical development under a trained teacher.[1] The physical education teachers should become familiar with the physical needs of all the children through a study of their medical examination blanks. Much can be done through corrective gymnastics to remove or greatly improve physical defects. Since the greater proportion of all children are found in the elementary school, the greatest good to the greatest number demands that particular attention to remedying physical disabilities should be a part of the

[1] Curtis, Henry. *Education through Play*, chaps. I to IV, inclusive. The Macmillan Company, New York, 1915.

physical-education program. That there should be adequate play-space connected with every elementary school, equipped with suitable play apparatus, goes without saying, yet it is doubtful if one fifth of the total number of schools in this country have made even that amount of preparation for physical education. Every one-room school should have a teacher who understands the importance of physical development, and is capable of giving practical training and guidance to the pupils. Every city elementary school should have at least one full-time physical-education teacher, trained just as carefully in that branch of educational science as the academic teachers are trained for their work.

Legal provisions for physical education. The California school law provides that all pupils enrolled in the day elementary schools, except those who may be excused on account of physical disability, shall take the physical education courses.[1] These courses provide for a twenty-minute period each school day (not counting regular recesses) and are designed to provide muscular training, correct posture defects, and promote a hygienic school and home life. A State supervisor of physical education plans the courses and attends to the enforcement of the provisions of the State law. Provision is also made for the completion of a prescribed course in physical education as a prerequisite for graduation from the State teachers colleges. Graduate work in physical education, designed to prepare teachers and supervisors of physical education, is offered by the University of California, and the other universities of the State. In several of the other States also physical education is definitely provided for and not left to chance.[2]

[1] *California School Law*, 1923, chap. XLI, pp. 61–63, sections 1 to 5, inclusive.

[2] Salisbury, Elon G. "Legislative Provision for Physical Education" in *School and Society*, vol. 14, pp. 618 ff. Also United States Bureau of Education, Bulletin (1922) no. 1, on *Recent State Legislation for Physical Education.*

Physical education and guidance in the high school. While the statement was made in the previous section that more attention was paid to physical education in secondary schools than in elementary schools, it should be understood that this remark referred more to indirect physical education through athletics and games promoted by the students themselves than to specific provision for physical education in the program of studies. Regarding the present status of physical education in high schools, Inglis has this to say:[1]

> Physical education in the secondary schools of this country at the present time ranges all the way from the zero point to a very high degree of effective provision. . . . While conditions have improved noticeably since 1910, it remains true that woefully inadequate provisions are made for physical education in the public secondary schools at the present day. In the great majority of public secondary schools little or no provision is made for gymnasiums, no qualified teacher is employed for physical training or even for the teaching of hygiene, athletics are supervised and directed by teachers with few or no qualifications, no adequate machinery is provided for physical examination or even for medical inspection, and what little physical training is given is of a formal and perfunctory character. The common provision, even in some of our best schools, of two periods per week in gymnasium exercises, is little more than a pretence of education.

The fundamental need of adolescent youths is not for formal instruction in anatomy, physiology, or hygiene as subjects, but for guidance and training in the application of the principles of health and physical well-being to their own needs. The changes that have taken place in American life since 1850 have reduced greatly the opportunities for physical exercise. Children who live in city apartments are not called upon to work about the house, as were the children of earlier generations. The reduction of the proportion of agricultural workers to industrial workers reduces, relatively,

[1] Inglis, A. *Principles of Secondary Education;* chap. xix, pp. 640–41. Houghton Mifflin Company, 1918.

the number of children who have the opportunity to lay a foundation of physical vigor by out-of-door work on farms. A great majority of high-school students will ultimately find their way into the professions or into business and clerical occupations — that is, occupations of a sedentary nature. Commenting on the danger to health of such occupations, Sargent says: [1]

> The sedentary life of the student, clerk, and professional man gives ample opportunity for the development of the brain; but unless some time is given to physical exercise the brain will be nourished at the expense of the other organs. Sluggishness of the liver, constipation, and digestive troubles will soon follow, and unless relieved a diseased condition will be established.

The foundation for sound physical health must be laid during the years of elementary and secondary education, and the habits of exercise and attention to the laws of health must be so ingrained during this formative period that they may be counted on to carry over into adult life. Even those who are to engage in mechanical and industrial occupations should have instruction in the best methods of physical relaxation and exercise, since under the extreme specialization of mechanical occupations, they are usually called upon to exercise only a portion of their muscles. Occupational diseases and physical deformities result from such specialization, unless corrective exercise is taken.

Physical training as a regular part of the program of studies. The importance of physical education is rapidly gaining recognition among high-school administrators. Where formerly student participation in games and physical sports was not only neglected but actually frowned upon, there is now a feeling that so important a phase of education deserves a place in the regular program of studies. The States of Pennsylvania and California, among others, pre-

[1] Sargent, D. A. *Physical Education*, p. 52. Ginn & Co., Boston, 1906.

scribe at least two hours per week of attention to physical education as a class exercise in high schools.[1] As other States adopt the formal requirement the first step will have been taken to place physical education on a par with other subjects. The next, and really the vital step, must be the formulation of a course of study in physical education and the employment of trained teachers to handle it.

Such a course in physical education should give attention to the three main subdivisions of physical education:[2]

(*a*) *The natural physical-training activities*, which arise out of instinctive tendencies to engage in play or sports, such as self-testing stunts, dancing, competitive games of all sorts, wrestling, rowing, and seasonal sports of various kinds.

(*b*) *Related physical-training activities*, which arise from interests not specifically connected with physical education as such — that is, walking, outing or vacation expeditions, including hunting and fishing, and vocational or avocational activities.

(*c*) *Formal physical-training activities*, which have been devised to bring certain muscles into play, or for the purpose of correcting posture, and other developmental purposes. These formal activities have to do with human motor mechanics and are capable of infinite variation. The most usual forms of this type of activity are military drill, setting-up exercises, calesthenics, and other forms of group movements under trained leadership.

The formal physical-training activities. These are:

(*a*) *Military drill.*[3] This form of physical training has ap-

[1] *Manual for High Schools*, Commonwealth of Pennsylvania, Department of Public Instruction, 1922, p. 28. For California, see *School Law*, 1923, p. 61.

[2] Hetherington, C. W. *A School Program in Physical Education*, pp. 15–19. *Op. cit.*

[3] Inglis, A. *Op. cit.*, pp. 657–58.

pealed to educators in the past as laying a present foundation in physical development and providing for future defense. High-school military companies are not uncommon in any part of the country, since the same idea with relation to the combination of physical training with defense is well nigh universal. It is, however, contrary to the practice of the Greeks, with whom formal military training did not begin until about age eighteen or nineteen. The Germans, than whom no modern nation has studied the art of war more assiduously, do not permit military drill in secondary schools below what corresponds to about age eighteen or nineteen. The Australians, whose situation is most analogous to our own, since they are a democratic people and are opposed to a large standing army, permit no military drill during what corresponds to our secondary school period. The claim of the military experts of these nations is that military drill does not provide the type of physical training most desirable for adolescent youth, first, because it is too formal and monotonous, and second, because, if properly executed, it is too rigorous and tends to promote defects which interfere with later military efficiency.

(*b*) *Formal gymnastics.*[1] As a sole means of physical education, formal gymnastics leave much to be desired. They tend to become highly artificial and mechanical, and, since special apparatus is necessary which ordinary homes cannot afford, they do not carry over into later life as permanent interests. There is also the tendency, since individual differences are neglected in mass drills, to create a distaste in the minds of many pupils for the entire program of physical training. As a supplementary agency formal gymnastics may be utilized to good advantage in correcting physical defects, or in developing certain aspects of physical culture not capable of treatment in other ways.

[1] Inglis, A. *Op. cit.*, pp. 653–54.

Related physical-training activities. These are of two main types:

(*a*) *Outing activities.*[1] The setting aside of great areas for national parks, and the possession of automobiles by every fourth or fifth family, with the out-of-door interests which are fostered thereby, make training in care of person, camp-equipment, and automobile, an important adjunct of physical education training in the schools. Much of this training is given under the auspices of such organizations as the Boy and Girl Scouts, hiking clubs, camera clubs, bird clubs, etc., but all of these organizations should be motivated and supervised by the Physical Education Department in coöperation with the other departments concerned. So important does the President of the United States consider this phase of national well-being that he has appointed a national commission[2] to coördinate all out-of-door recreational agencies, to conserve game, fish, and fowl; to protect national parks; to promote good roads; to foster wholesome and health-giving playgrounds; and in general to act as a clearing house for information about the great out-of-door play-spaces, and to encourage participation in out-of-door recreations by still greater numbers of people than are now enjoying them. The high schools, through their departments of physical education, should become energetic way stations along the great national highways to health and recreation.

(*b*) *Vocational and avocational activities.* In coöperation with the vocational education department, the physical education department of the high school should acquaint prospective workers in the various fields with the physical dangers incident to those occupations, and should give

[1] Gilchrist, E. "Socialized Athletics"; in *School and Society*, vol. 14, pp. 148–49.

[2] President Coolidge, by executive order, created such a commission in April, 1924.

advice and counsel as to the best type of physical exercise to take in order to prevent the onset of such diseases [1] or deformities. Such instruction could be given in connection with the class in "Occupations," or "Vocational Civics."

The natural physical-training activities. These are:

(*a*) *Self-testing stunts.* In Boise, Idaho, in 1919, the physical director had as his ideal a one hundred per cent participation of high-school pupils in physical activities.[2] Preliminary classification for engaging in the various types of activity was based on a series of simple tests or stunts which each pupil undertook to perform. These related to lung expansion, grip, strength of arms and legs, and simple tests of endurance. Minimum standards were set, and the pupils were supervised in practicing the stunts until they were able to attain proficiency. The passing of the tests was prerequisite to entering into competitive games. Thus every pupil received attention, and those most in need of physical upbuilding received individual corrective training.

(*b*) *Dancing.* For the purpose of developing poise and ease of manner and grace, folk-dancing is unexcelled.[3] There is nothing to commend the modern jazz-accompanied frenzy, mislabeled dancing, either from the physical or the æsthetic angle, to leave out of the account its moral aspects. But there is much to commend in the attempted revival of folk-dancing with its dignified measures, its graceful movements, and its stately poses. Far better to revive the rhythmical folk-games of our Scandinavian forbears than to reënact the barbaric scenes of Darkest Africa. The physical education department can do much to make the revival of the former

[1] Ireland, George H. *Preventable Occupational Diseases.* Pamphlet published by the American Public Health Association.

[2] Sears *et al.* *The Boise Survey,* pp. 237. World Book Company, Yonkers, New York, 1920.

[3] Inglis, A. *Op. cit.,* pp. 654–57.

both pleasant as a social experience and physically rewarding.

(*c*) *Athletic games.* The social and moral aspects of athletic games will be discussed in Chapter XI, on Moral Guidance. The discussion here will be confined to the physical and health aspects of athletic games and sports. Athletic enterprises, such as football, baseball, and track, bulk very large in the interest of high-school pupils, as well as in the time given to preparation for the contests. When such enterprises are entirely under student management and control, not only are the moral evils of professionalism, "ringers," unfair playing, etc., liable to creep in, but also the physical evils of overtraining, participation by those who should not engage in such strenuous sports, neglect of hygienic precautions in bathing, care of equipment, etc., are bound to manifest themselves.

Supervision and guidance in athletics. Supervision and guidance is even more essential in connection with athletic sports than in the case of other phases of high-school physical training. There are certain fundamental principles which this guidance should undertake to carry out:

First, that competitive games between high schools should become of secondary, rather than of primary importance as at present. The commercial club of a certain western community raised money to pay a coach more than the principal of the high school was receiving. Then all football players were brought back for a month of secret practice at a mountain resort before the regular opening of schools. Finally, they secured easy positions for husky youths to enable them to pay expenses during the football season. This team won the State championship, and defeated the champions of the Middle West during that year. The writer is reliably informed that such instances are not at all uncommon, either East or West. Under such a régime ten times as much is

spent on fifteen or twenty young men, already physically fit, in order to make "a Roman holiday" in the football arena, as is spent on the physical necessities of all the rest of the student body.

Second, all forms of athletic games and sports should be utilized as means to the end of physical fitness for the entire student body.[1] If first consideration is given to the physical fitness of all, there will be no lack of material for representative teams. Under present practice, ninety per cent of the exercise of high-school pupils is of the vicarious variety, and consists in exercising the lungs on the side lines, as rooters.

Third, the athletic coach should in every instance be a regular, full-time, instructor in the high school.[2] It is not always possible to employ an instructor for physical education only, but it is always possible to secure a teacher who can combine instruction in some other subject with physical education. Such a teacher should not be expected to teach full-time in some academic subject, and also give two or three hours after school to physical education instruction and athletic coaching. His schedule should be adapted to his duties, and the athletic policy should be counted as an integral part of the regular high-school policy — as a regular, coördinate department of instruction with other departments.

When the aim of high-school physical education and athletics becomes 100 per cent participation and physical fitness; when interscholastic contests are subordinated to the fundamental aims of health and bodily vigor for all; and when properly trained teachers of physical education take over not only the regular courses in physical training but the

[1] Keene, Charles A. "Organization of the School for Health"; in *Educational Administration and Supervision*, vol. 9, pp. 367–70.

[2] Morrill, R. S. "The Coach and the School"; in *School Review*, vol. 32, pp. 380 ff.

functions of the athletic coach as well — it may then be said that our secondary schools have begun to "arrive" in the matter of a sane, wholesome policy with regard to physical education and guidance.

QUESTIONS AND PROBLEMS FOR FURTHER STUDY

1. It is estimated that over one million people are annually incapacitated by illness due to preventable causes. Calculate the probable economic loss.
2. What should be the proportion of window space to floor space in a schoolroom, and how should this window space be arranged?
3. What disadvantages, from the health and hygiene standpoint, are to be associated with the schoolroom desks screwed to the floor?
4. The physician attached to a certain State school refused to permit the physical director of the school to consult the physical examination blanks on file in his office, on the grounds that these were clinical records and not properly open to inspection. Was the physician in the right?
5. The school nurse, in a certain school system, follows a standard height and weight chart. If children are under weight, she assumes that they are anæmic and prescribes mid-morning lunches. Is her procedure correct?
6. What are the common dangers and difficulties which beset the person who attempts to give instruction in sex-hygiene to adolescents?
7. Enumerate the possible ways in which insipient mental disorders may be aggravated by schoolroom routine?
8. How would the Greek policy, of limiting training for the Olympian Games to a few of the mature athletes, affect our high-school football and track teams?
9. Outline a course of study in physical education, designed to absorb about one fourth of the school day. How would such a program affect the present arrangement of subjects? What would be the effect upon the percentage of teachers now devoting full time to physical education?
10. No one is permitted to graduate from a certain high school in a Middle Western State, unless he or she is able to swim fifty feet. Is such a provision the best means of promoting physical fitness?
11. The athletic coach of a California high school is a regular member of the teaching staff, giving full time to physical education, but, on his own stipulation, he has nothing to do with the selection of teams for interscholastic contests. The team captains must do that. Is this coach worthy of emulation?

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CHAPTER X

GUIDANCE IN THE WORTHY USE OF LEISURE TIME

I. The Worthy Use of Leisure as an Educational Objective

The tendency toward a greater amount of leisure time for all. In every field of human endeavor, labor-saving devices tend to reduce the necessity for long hours at tasks requiring strenuous physical exertion. The Saturday half-holiday has reduced the standard week to forty-four hours in the leading commercial and industrial establishments. All Government and municipal work is on an eight-hour-day basis. The ten- and twelve-hour day is rapidly disappearing, even in agricultural pursuits, and in some quarters there is persistent agitation for a seven-hour day and a five-day working week. Just in proportion, however, as the amount of leisure time at the disposal of a people increases does the necessity for guidance in the wise use of that leisure time force itself upon our attention. This truth is illustrated by the fact that every recent formulation of the objectives of education includes the "worthy use of leisure" among the educational aims.[1] It would be a serious educational blunder to provide training for the civic and vocational activities of life and neglect the æsthetic and avocational activities.

The physical and health aspects of a worthy use of leisure. It is claimed that fifteen years has been added to the average

[1] Bobbitt, Franklin: *How to Make a Curriculum*, pp. 219–37; Houghton Mifflin Company, Boston, 1924; Parker, S. C.: *Methods of Teaching in High Schools*, pp. 232 ff.; Ginn & Co., Boston, 1920; Inglis, A.: *Principles of Secondary Education*, pp. 367–75; Houghton Mifflin Company, Boston, 1918; and *Cardinal Principles of Secondary Education*, p. 15. United States Bureau of Education, Bulletin (1918) no. 35.

length of life during the past half-century by the discoveries of medical science and the application of hygiene to daily living. This means that thousands, who under the old conditions would have died in infancy or early youth, now come to maturity in a more or less precarious state of physical health. Such persons, under the nerve- and heart-trying conditions of modern life, are cut down in early middle age. They make fairly satisfactory short-distance runners, but cannot stand up under the grilling of the long-distance races. The best antidote for the toxins, generated by living at high pressure in social and occupational life, is a proper use of the leisure which our intense devotion to productive activities has made possible. In this high-speed, industrial age, wholesome recreation and diversion have become imperative necessities.[1]

Social and moral aspects of the worthy use of leisure. The importance of leisure in the social and moral development of mankind, is thus stated by Ward:[2]

> While the economic virtues are the product of work, the whole character is formed in leisure, or "free time." . . . You see a man as he really is when he gets away from his work and lives in his home or among his friends. One's capacity for social living is the primary measure of one's wholeness of character.

The more monotonous and spiritually deadening the daily vocational task, the greater the necessity for relaxation and mental recuperation on the part of the workers. The Ford Automobile Company, The National Cash Register Company, the Eastman Kodak Company, and other great industrial concerns have learned to proceed on the assumption that the promotion of the health, happiness, and mental

[1] Gulick, Luther H. *A Philosophy of Play*, chaps. I and II. Chas. Scribner's Sons, New York, 1920.

[2] Ward, Frank G. *Religious Education*, vol. 18, no. 6 (December, 1923), p. 362.

balance of the worker is reflected in that worker's attitude toward work, and also in his productive capacity. There is no longer an excuse for the economic philosophy which counts men as belonging to the same category with machines, because it has been shown to be indefensible either on humanitarian or economic grounds.

What has just been stated with reference to adult workers is no less true when applied to adolescent youth. The way in which young people spend their leisure time has direct bearing upon moral habits and character formation. The case records of delinquent boys and girls furnish startling proof that the evil associations which led to downfall were more often than not formed during periods of leisure or idleness. Youth demands change, diversion, and excitement. If harmless means of satisfying these natural inclinations are not provided, other means will usually be found.[1]

We are prone to spend our time in longing for a return of the "Golden Age" when there were no flappers; when children obeyed their parents; when boys worked long hours on the farm without complaint, and girls worked in the kitchen or at the loom in useful household employment; when simple pleasures satisfied; and when the rule of life was "plain living and high thinking" rather than high living and no thinking, as some writers diagnose the case to-day. But, as in the case of the ox-cart and the grist-mill, "those days are gone forever." Even better days are at hand, if we only knew it. With the increased power which science and invention have put into the hands of our boys and girls, they have infinitely greater possibilities for good, as well as evil, when compared with the children of two generations ago. Sanity, poise, and balance brought into their lives through proper training and guidance in relation to the factors of

[1] Addams, Jane. *The Spirit of Youth and our City Streets*, chap. III, pp. 51–71. The Macmillan Company, New York, 1911.

work, study, and play, will serve to harness their restless energy to the tasks and problems which shall have been bequeathed to them by the generation now in control. A proper use of leisure time will serve as a balance wheel to keep their cars of destiny upright on the speed-way of modern life.

II. Diversions

Physical diversions. A diversion is a recreative activity to which one turns for brief periods of relaxation. It is essentially a pleasurable means of passing leisure time in a manner which does not involve long-sustained training and application on the part of the performer. Under the heading of physical diversions may be mentioned walking, horseback riding, boating, motoring, hunting, fishing, and camping out. These diversions are adaptable to individual or group participation, and on that account are most apt to be carried over into adult life. The value of such diversions lies in the fact that devotees are taken out of doors.

Another group of physical diversions is made up of amateur games and sports in which one may engage as a player, or spend a pleasant afternoon as a spectator. There is a strong demand for this type of diversion. The following games are discussed:

(*a*) *Baseball.* This game has been syndicated into a recognized national sport, having several thousand highly paid professional players in the big leagues, and other thousands of professional and semi-professional players in the minor leagues and associations. Watching the professional, the semi-professional league players, or the strictly amateur high school and college baseball games, every year furnishes a means of diversion to many millions of people in the United States.

(*b*) *Football,* although not professionalized in this country,

as it is in Great Britain and her dependencies, has assumed leadership as a well-nigh royal sport. Immense stadiums, accommodating ten to eighty thousand spectators, give the annual college football contests the setting of the gladiatorial contests in ancient Rome. The sums of money collected from spectators and spent on high-priced coaches, trainers, and equipment for the staging of these great exhibitions of physical prowess have become colossal. There is a growing danger that the football tail may eventually wag the college dog. Attention has elsewhere been called to the evil effects which this anomalous situation has upon the physical training program for the entire student body.[1] It must be admitted, though, that as a diversion — as a means of causing one to forget, for the time being, all business, social, and domestic worries — there is no modern spectacle which compares with a great intercollegiate football game.

(*c*) *Tennis, track, and basket-ball* — sports in which one may engage as an amateur in high school or college — tend to hold their own as later sources of diversion, in the form of attendance at the games and tournaments in one's later years. Tennis and track have their international features in the Olympian Games, and in the Davis and other cup matches. These sports not only afford diversion to great numbers of people, but they have become one of the important avenues of international comity and good-will.

Social diversions. The average American man is more at home as a participant or spectator in physical diversions than in social diversions. He should learn to be at home in either form of diversion. This is largely a matter of training, and should receive more attention than is at present given in our public schools. Among social diversions may be mentioned:

(*a*) *Dancing* is perhaps the most prevalent type of social

[1] See Chapter IX, pp. 193, 194.

diversion in which practice is to be had while in school, but this form of social diversion is in disfavor in many communities. In communities where dancing is permitted under the auspices of the public schools, it should be conducted under the direction of the physical education department. There should be careful instruction in technique, and strict insistence upon conformity with the best social usage. Its value as a diversion will not be impaired in the least if it is made the medium for effective training in manners and social etiquette.

(*b*) *Parties, dinners, and receptions.* What has been said of dancing as a diversion applies also to these. Every child should have specific training in the amenities of social gatherings of this type. First, because as social beings it is not good for us, spiritually, to permit ourselves to become too individualistic or isolated from our fellows. Non-social folks tend to become "queer," introspective, morbid. Second, because real enjoyment of social functions is necessary if they are to afford true diversion. Enjoyment is impossible where one feels ill at ease, awkward, or in the least *outré*. There is entirely too much ground for the accusation that as a people we are inclined to be boorish. Yet there is no people in the world more truly kind at heart or ready to lend a hand in the time of suffering or disaster, at home or abroad. We owe it to ourselves to see that our exterior manners and behavior conform more closely with our true attitudes of heart and mind. An act of kindness becomes doubly kind if performed in a gracious manner.

Guidance in the enjoyment of social and physical diversions. There are so many possible ways of finding diversion that the danger is either that a student will attempt to participate in too many, and thus make the seeking of diversion an end in itself, or that, not knowing which activities to select, he becomes confused and does not engage in

any. There should be some person in the school charged with the responsibility of giving guidance in the selection of and training in physical activities, and another person to give guidance in the selection of social activities. In each field a student should be expected to select a major activity in which he would expect to do some intensive work as an amateur performer. In physical activities it might be hiking, rowing, track, football, baseball, basket-ball, or any of the available sports and games. In social activities it might be dramatics, dancing, pageants, or active leadership in one of the many special clubs.

Preferably but one major activity should be encouraged in each field. Such an arrangement prevents students from spending all their time in school activities, to the detriment of their studies, and enables a greater number to have a chance at leadership.[1] This major field should be carefully chosen in the light of both interest and proven ability, and should be pursued, as above intimated, with a reasonable degree of intensity.

Along with this intensive attention to major interests in physical and social diversions, there should be encouragement to participate as spectators in a number of other activities. The major activity will involve both passable skill and enjoyment, the minor activities need involve only enjoyment. The capacity to get enjoyment out of the activities of others will, however, be greatly enhanced if some pains are taken to see that the onlookers understand the fine points of the game and are instructed in the ethics of the sport. They should learn that it is possible to be loyal to their own side in a match game, and yet to observe the rules of true sportsmanship. It happens, frequently that the in-

[1] Sturtevent, Sarah M. "Extra-Curricular Activities"; *Report of Committee of Fifteen of the California High School Teachers' Association*, pp. 186–219. San Francisco, 1923.

tense feeling between schools engenders a feeling of bitterness which is expressed in unseemly ways during the progress of interscholastic games. The remedy lies in the training of all the pupils in a school to be decent, fair, and generous, both as performers and spectators. There is no truer index than this of the real character and spirit of a student body, yet such self-control comes only as the result of persistent training and the setting up of high ideals, backed by established traditions and an enlightened public opinion.

Enjoyment of social diversions from the spectator's point of view likewise involves training. Speaking of music in this connection, Parker says:[1]

> Obviously, if students are expected to enjoy singing, it is important that the teacher begin with songs adapted to the stage of development that they have reached, and that abundant opportunity should be given for the enjoyment of relatively simple melodies and harmonies before advanced, intricate compositions are attacked or much formal technical practice attempted.

In addition to chorus singing, there should be understandable instruction in what to expect or how to interpret the best musical compositions, somewhat after the method of the lecture-recital which was employed so effectively by the Thomas Orchestra, in Chicago, during the lifetime of that famous director. A knowledge of technical botany is not essential to the enjoyment of a beautiful rose, neither is a knowledge of technical music necessary to enable one to listen with pleasure to the best musical selections.[2] Opportunity to hear the best, coupled with some instruction as to musical themes and motifs, will enable one to find enjoyable recreation in attending concerts, or "listening-in" when

[1] Parker, S. C. *Methods of Teaching in High Schools*, chap. x, p. 241. Ginn & Co., Boston, 1920.

[2] Snedden, David. "The Future of Musical Education in the Public Schools"; in *School and Society*, vol. 17, pp. 587–96.

musical programs are broadcasted from the numerous radio stations.

What has been said of music, as an individual or social diversion, will apply with equal force to the drama, pageants, etc.[1] There will always be a limited number engaged in these forms of diversion as major performers, either professional or amateur, but unless there is some training of those who are to be the auditors in methods of deriving the greatest amount of enjoyment from the performances, the quality of art itself is apt to suffer. In Italy, where there is the most widespread amateur interest in vocal music, the greatest number of grand-opera singers is to be found. Similarly, in the countries where there is the greatest popular interest and amateur ability in instrumental music, we find the highest expressions of that art. The two supplement each other. The artist helps to create his audience by ministering to the human desire for enjoyable emotional experiences; the audience tends to create the artist by stimulating him to his utmost endeavor through its manifestation of enjoyment and approval of his artistic effort.

III. Avocations

Character and variety of avocational activities. An avocational activity is one to which a person applies himself systematically and with the purpose of acquiring both skill and enjoyment from the performance, but without the expectation of financial returns from the effort involved. An avocation differs from a diversion in that the latter is engaged in for relatively brief periods and most often in the capacity of an auditor or onlooker, while the former engages the attention in a systematic manner for long periods of

[1] "Projects Concerned with Avocational and Cultural Interests"; in *Twentieth Yearbook*, part I, 1921, *National Society for the Study of Education*, chap. IV, sec. D, pp. 154–66.

time, frequently for life. The avocation differs from the vocation, in that the vocation is pursued with the economic returns in view. The vocation may be enjoyable or it may be distasteful, but so long as it yields a living it serves its primary purpose. The avocation, on the contrary, must afford personal interest and enjoyment, in addition to having the ordinary characteristics of a suitable vocation. But the pursuit of the avocation must be sustained by its inherent worth as a means of culture to the individual, and not on account of its financial rewards. If financial returns result from an avocational pursuit they must be merely incidental. As soon as such returns become the motivating factor one's avocation has become his vocation, or one of his vocations.

The avocation should utilize unengaged capacities. Avocations are as infinite in variety as are vocations, and every person, for the sake of his mental and physical health and balance, should have at least one such sustained activity to which to devote his leisure time and unengaged capacities. It is the peculiar office of the avocation to afford a person an outlet for capacities not called into play in his vocation, and thus to insure an equalization of interest and effort. Too intense application to any pursuit, no matter how interesting, tends to make one narrow, to warp one's nature, and to develop occupational diseases. To be able to shift one's attention to an absorbing pursuit, which enlists other capacities than those ordinarily called into play by the daily vocation, is to make sure not only of having at one's command the most satisfying kind of recreation, but also of broadening one's interests and of increasing the number of one's vital contacts with the world at large.

The avocation should be a means of self-expression. Perhaps the most essential feature of an avocation is that it should afford the person a chance adequately to express him-

self. Man has an innate desire to express his emotions in pleasing form, and although but few individuals ever attain to genuine artistic skill in their efforts to find pleasing expression for their emotions, almost every human being is capable of responding to or enjoying the artist's finished product, whether painting, statue, sonnet, drama, novel, oratorio, or even a mechanical invention of pleasing design and deft workmanship. Says Ruediger:[1]

> Among eminent people of history avocational pursuits in the sense here used appear to have been common. Thomas Jefferson, a lawyer and statesman by profession, was a skilled violinist and is said to have played or practiced three hours a day. Joseph Jefferson, the actor, painted in his leisure hours and ultimately produced pictures of high merit. Grote, the historian, followed banking as his primary occupation till the age of forty-nine. . . . Agassiz was a naturalist, geologist and physician. . . . Sir Humphrey Davy was a lecturer and writer of prose and poetry. . . . Galileo even in his early life ranked in musical skill and invention with the best professors of the art in Italy. . . . Newton wrote a complete Church History and many divinity tracts, besides his scientific works.

Different types of avocational pursuits. We will consider, briefly, four types:

(*a*) *Social.* The possibilities of avocational activities in the social realm are not fully realized, yet this is a field of great promise. Many people lacking in special abilities of the kind usually associated with successful avocational pursuits are gifted in a social way. They get on well with people, are "good mixers," and know how to iron out group difficulties and to secure coöperative action from people of divergent dispositions and points of view. With Pope they believe that "the proper study of mankind is Man." They are practical psychologists, who understand how the average

[1] Ruediger, Wm. C. "Avocational Guidance"; chap. xxv of *The Modern High School*, pp. 633–34. By Johnston *et al.*, Chas. Scribner's Sons, New York, 1914.

person will respond to certain stimuli, and many of them, as an aside from their regular occupation, become past masters at the art of social engineering. It is they who organize and maintain the lodges, churches, benevolent associations, and political parties and clubs of various sorts which go to make up so large a part of our present-day social life. When a person devotes attention to any social enterprise, giving to it an appreciable portion of his leisure time, becoming familiar with its history, and stirring up others to believe in it and work for it as he does, he is entitled to credit for having a worth-while avocation.

(*b*) *Æsthetic avocations* cover the fields of amateur artistic accomplishment in music, painting, sculpture, drama, literature, bookbinding, photography, etc. In saying that an amateur artistic accomplishment is the sign-manual of the æsthetic avocation, one should be careful not to exclude those who, although not possessing the technique of artistic expression, keenly enjoy the artistic accomplishments of others and devote their leisure time to the study, understanding, and enjoyment of art in some form. In this group are to be found the amateur connoisseurs, the historians, and the appreciative writers on art subjects.

It frequently happens that an æsthetic avocation becomes one's vocation through its revelation of an unusual degree of aptitude. Every one is familiar with the wonderful Wallace Nutting photographs. Dr. Nutting was at one time a clergyman, who had attained distinction in his calling and was pastor of a great metropolitan church. He took up photography as a hobby. He possessed such a sense of artistic values, and was so successful in catching and preserving these values in the pictures which he took, that they were speedily recognized as works of art. Both fame and fortune have come to him in this field which was at one time his avocation. Alexander Graham Bell's vocation was that

of a teacher of vocal expression, with special attention to the correction of speech defects. He and his brother took up the study of mechanical devices for imitating the human voice which led them to make minute researches into the mechanism of the human vocal organs. Out of these researches came the telephone, and Bell changed his vocation from that of a teacher of artistic vocal expression to that of inventor.

(*c*) *Scientific.* The pursuit of scientific studies offers a rich field for the cultivation of worth-while avocations. The instinct of curiosity is of equal strength with the instinct for expression. The desire to explore, to discover, and to find out about things is universal. When this instinct is given an opportunity to function in an organized and systematic way in the discovery and classification of data, it becomes scientific research. The fact that one follows some phase of scientific investigation as an avocation does not mean that the work is less carefully or less accurately done, but simply that the person is earning his living in some other way, and devotes his leisure hours to scientific study. Pascal was apprenticed to an apothecary, but was permitted by his employer to experiment with chemicals in a crude laboratory which he set up in an old shed. Out of this avocational pursuit grew an interest in scientific research which ultimately placed him in the forefront of the world's greatest scientific discoverers.

Familiarity with the "scientific methods," and practice in its application to discovered facts or collected data, gives one the key to an understanding of the marvelous progress which man has made in the understanding and control of his environment. It is quite customary for teachers of scientific subjects to select some phase of their chosen field in which to pursue research as an avocational activity. Some of the most beneficial of medical discoveries have been

made by practicing physicians, who have followed some specific line of research as an avocational pursuit. The most splendid feature of medical ethics is that which requires the dedication of such discoveries to humanity, without patent or copyright, as soon as authenticated.

It frequently happens, however, that a person engaged in a non-scientific occupation takes up scientific research as an avocation. A professor of Hebrew in Chicago University spent his summers "botanizing." At forty he lost his voice through an affliction of the throat, and was compelled to change his vocation. The curator of the botanical museum knew of this professor's botanical researches. An inspection of his collection established its scientific value, and he was made assistant curator. On the death of the curator he became head curator of the university's botanical museum. The study of Hebrew is now his avocation.

(*d*) *Manual and Household Arts.* Another instinct which lends itself to the promotion of avocational pursuits, is that of workmanship — that is, the desire to manipulate, to handle, and to fashion things. It is safe to say that from sixty to seventy per cent of the gainful workers are engaged in tasks requiring some form of manual dexterity. Although women engaged in home-making are not counted as gainful workers, they are nevertheless *productive* workers. Eighty-five per cent of the women thirty years of age and over are engaged in home-making, either in their own homes or as domestic-service employees. Thus it may be seen that the manual and household arts occupy the most important place in the realm of occupational activity. It might on that account be argued that they would hold a correspondingly small place in the avocational realm. Such, however, is not the case. For men engaged in sedentary occupations there is no better avocation than some form of manual-arts work. For women engaged in commercial, clerical, or teaching oc-

cupations, some phase of household-arts work will be beneficial. Even after home-making becomes the steady occupation, many avocational possibilities are to be discovered in connection with interior decoration, or the design and making of hats, dresses, draperies, lace, etc.

Avocational mastery of another craft. Even for the man, engaged in a skilled mechanical or industrial occupation, the mastery of another or an allied craft often proves to be an effective and acceptable form of avocation.

A jeweler, in a small western village, took up the making of archery supplies, bows, arrows, etc., as an avocation. Every year at just the right season he went up into the mountains to cut his yew wood, which he whip-sawed by hand and laid away to season for a year. From the seasoned yew wood he fashioned bows of wonderful strength and beauty. Such was his skill that he became a living exemplar of Emerson's saying that "if you fashion a mouse-trap, which is better than your neighbor's, the world will make a beaten track to your door." Archers from all over the world sent to the little village to secure their bows and arrows. For many years the world's champion archer came all the way from England to select his weapons, and on one occasion sent the jeweler the skin of a mountain lion which he had killed with the bow and arrows bought of Mr. Barnes that year. He mended sick clocks and watches for a living, but the making of superb bows and arrows was his means of carving for himself a niche in the Archers' Hall of Fame, and of finding his way to "the larger life" of those who achieve in the realm of creative art. In years to come a Barnes Bow will mean to the archer what now a Stradivarius violin means to the violinist.

Human versatility shown in mastering avocations. It not infrequently happens that a person, engaged in a non-mechanical occupation, who takes up some phase of manual-

arts as an avocation, will acquire, in a very brief space of time, a skill which is supposed to come only to those who have spent several years in apprenticeship. This point is illustrated by the case of a young man in Cambridge, a clerk in a dry goods store, who, because of his interest in pipe-organ playing and the difficulty of securing an organ on which to practice, decided to build a pipe-organ for himself. In three years' time he built, without assistance, a two-manual, electric-action, pipe-organ, perfect in every detail. His only background for the work was a few months apprenticeship in a piano factory. To accomplish the feat he had to learn mechanical drawing, plumbing, tin-smithing, metal-working, electric-wiring, cabinet-making, and carpentry, not to mention the craft of organ building. All of this during the leisure hours of three years. A striking example of human versatility, under the urge of an absorbing avocational interest.

Guidance in selecting and training for avocations. Guidance in the selection of an avocation and training for the avocation chosen is, in many respects, more important than guidance in and training for a vocation. A change of vocation is often necessary, and in certain circumstances very desirable. The maintainance of social status through increased economic returns, the education of children, the onset of occupational diseases or handicaps, the shifting of demand for certain types of work — these and many other factors enter into the determination of occupational permanence or stability. Again, the tendency toward specialization in every occupation operates to confine a person to one small segment of the whole process. In industry this fragment of an occupation can often be learned in a few days or a few months, and does not in itself give opportunity for the exercise of all of any man's mental or physical ability.

An avocation more frequently involves the learning of a complete process, and if selected carefully is less subject to factors involving change than is the case with vocations. Then, too, there is the psychological factor. If one has a permanent avocation to which to turn for recreation and self-expression, the shocks and disappointments of occupational reverses will have a less disastrous effect, the resiliency of the individual is greatly increased, and his economic productive period is also greatly lengthened thereby.

School guidance and training for the avocations. For the *social avocations* guidance will naturally come within the jurisdiction of the social science department of the school. A full realization on the part of the teachers in this department of the avocational possibilities of social-service activities would materially strengthen the appeal of the social studies to students. While only a small number of pupils will enter social service occupations as a means of livelihood, many of them are capable of developing leadership in some phase of social service as an avocation. Training for such avocations is to be had in connection with the social activities of the school or community,[1] but some teacher from the social-science group of studies should have the responsibility for giving guidance along these lines, and for making sure that available opportunities for training in the social-service avocations are utilized by those students who will derive greatest benefit from the experience.

For the *æsthetic avocations* [2] training and guidance is to be had in connection with the departments of Literature, Music, Dramatics, and Graphic or Fine Arts. In connection with these departments also, it will be found that there will be

[1] Pechstein, L. A., and McGregor, A. L. *The Psychology of the Junior High-School Pupil*, chap. XIX, "Avocational and Social Activities," pp. 220–25. Houghton Mifflin Company, Boston, 1924.

[2] Inglis, A. *The Principles of Secondary Education*, chap. XVIII. "The Æsthetic Arts," pp. 621–32. Houghton Mifflin Company, Boston, 1918

very few individuals having sufficient talent to warrent encouraging them to take up an æsthetic vocation. A great many, however, will be found to possess enough aptitude to warrant them in following one of the æsthetic arts as an avocation.[1] An æsthetic avocation is particularly desirable for those whose vocations do not give scope to the exercise of creative imagination.

The *scientific avocations* [2] will naturally be fostered by the science teachers. Here again, since the most conspicuous service which the course of study in science can render is the orientation of the greatest possible number in the bearing of scientific facts and principles upon the affairs of daily life, the avocational needs of the many, as well as the vocational needs of a few, should be kept in view. Scientific research, even as an avocation, generally involves training beyond the high school. For this reason the avocational guidance of those who do not expect to complete high school, or go beyond into higher education, should in most cases involve the suggestion of some form of collecting, which does not require for its successful prosecution the possession of expensive laboratory. The fields of botany, geology, and entomology are rich in avocational possibilities.

The *manual-arts and household-arts avocations* [3] will come under the guidance of their respective departments in the high school. Both of these departments are severely criticized on the ground that they have no value from the viewpoint of vocational education. This criticism is perhaps justified, yet there is a distinct contribution which both

[1] Thomas-Tyndal, E. V., and Myers, J. D. *Junior High-School Life*, chap. x, on the æsthetic phases of avocational guidance, pp. 110–17. The Macmillan Company, New York, 1924.

[2] Audubon clubs, camera clubs, botany, biology, geology, chemistry, and other scientific clubs or societies can be organized for the avocational pursuit of the interests aroused in the classroom along these lines.

[3] Inglis, A. *Op. cit.*, chap. xviii, pp. 633–38.

departments can make in the way of avocational training. Cabinet-making as an occupation is being superseded by the machine-made product of the planing mill, but cabinet-making as a manual art should be preserved, and people should be trained to follow it as an avocation. A lawyer friend, on the background of his high-school manual training, engages in cabinet-making as an avocation. His home is beautifully furnished with pieces of exquisite design, made by himself. The same may be said for the other handcrafts which machinery is tending to make obsolete. We should preserve them as avocational pursuits, train for them in our manual-arts departments, and defend them on that ground as of equal importance with vocational training.

Guidance counselors, teachers of special subjects related to possible fields of avocational pursuit, and classroom teachers of all subjects, should be encouraged to be on the lookout for aptitudes which may be utilized in an avocational way, as well as those which may be developed into a vocation — the vocation as a means of making a living; the avocation as a means of enriching and enlarging the life.

QUESTIONS AND PROBLEMS FOR FURTHER STUDY

1. When the United States Steel Corporation decided to abandon the seven-day week and the twelve-hour day, was it as the result of a successful strike?
2. Is it likely that steel production will diminish or that dividends will shrink as a result of the shortening of the work-day and the work-week?
3. Is the granting of shorter hours of work an unmixed blessing?
4. What do you think of the tendency to shorten the school day — that is, the single-session idea?
5. What are the essential features of a worth-while diversion? In what fields should diversions be fostered?
6. How does an avocation differ from a diversion? From a vocation?
7. Cite examples, from your own knowledge of people, where the avocation became the vocation.

8. In addition to the cases cited in the text, investigate the avocational pursuits of ten noted men or women.
9. State the arguments against the author's position with reference to manual training and the household arts.
10. Is there a real danger that high-school and college sports, especially football, may become professionalized through the intense desire of alumni and others to produce winning teams? If so, how may this tendency best be counteracted?
11. What principles should govern the selection of an avocation?

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CHAPTER XI

GUIDANCE IN CHARACTER-BUILDING ACTIVITIES

I. Ethical Character an Essential Objective in Secondary Education

The obligation recognized. In the reaction against the union of Church and State in the first instance, and later to avoid the semblance of sectarian bias, all religious instruction has been eliminated from American public schools. A few States permit Bible reading,[1] and one or two others require it,[2] but where this practice obtains, the reading must be done without comment. While religion acts as a powerful agent in the cultivation of ethical character, there is no reason for assuming that unless it is permitted to teach religion in the schools there can be no moral instruction. However, the fact that religious instruction is specifically prohibited in most of our States, seems to have operated to stifle or greatly reduce the amount of attention given to specific moral and ethical instruction and training.

There is at the present time a growing realization of the danger that lurks in a neglect of ethical character as an objective in education. Practically all of the recent statements of the objectives or cardinal principles of secondary education have given "ethical character" a place of equal importance with other major ultimate objectives. Thus, the Committee on the Reorganization of Secondary Educa-

[1] Hood, W. R. *The Bible in the Public Schools*, pp. 1–15. United States Bureau of Education, Bulletin, (1923) no. 15.

[2] Massachusetts and five other States require Bible-reading in the schools, six prohibit it, and six definitely permit it. See *op. cit.*, p. 3.

tion, in its Bulletin on *Cardinal Principles of Secondary Education*,[1] says:

Ethical character. In a democratic society ethical character becomes paramount among the objectives of the secondary school. Among the means for developing ethical character may be mentioned the wise selection of content and methods of instruction in all subjects of study, the social contacts of students with one another and with their teachers, the opportunities afforded by the organization and administration of the school for the development on the part of the pupils of a sense of personal responsibility and initiative, and, above all, the spirit of service and the principles of true democracy which should permeate the entire school — principal, teachers, and pupils.

Additional evidence that the obligation of the public schools toward ethical instruction is becoming more widely recognized is found in the increased space given to discussions of the topic in teachers' gatherings and in the educational magazines. Philanthropy has set up a foundation in the national capital to encourage constructive thinking and planning along the lines of moral teaching and training in the schools,[2] State Teachers' Associations have committees at work on ethical and moral instruction, and the Commission on the Reorganization of Secondary Education of the National Education Association has embodied its suggestions in a helpful bulletin.[3] As a result of the activities of these various agencies, constructive plans are being developed and interesting experiments are being tried out which give promise of worth-while contributions to the ulti-

[1] *Cardinal Principles of Secondary Education*, p. 15. Bureau of Education Bulletin (1918) no. 35.

[2] The Character Institution, Milton Fairchild, Director, Chevy Chase, Washington, D.C.

[3] *Moral Values in Secondary Education*, prepared by Henry Neumann, of the National Education Association Commission on the Reorganization of Secondary Education. United States Bureau of Education, Bulletin (1917) no. 51.

mate solution of the problem. Specific reference to some of the more promising of these plans and suggestions will be made in later sections of this chapter.

The need for moral training and guidance.[1] It is claimed that conditions with reference to adolescent morality and ethical conduct are particularly bad at the present time.[2] This is only another way of saying that agencies, heretofore employed with a fair degree of success in resisting the forces of moral disintegration, are no longer able to cope with the situation. The failure of these agencies undoubtedly increases the burden which the public schools must undertake to carry. It is at least the duty of the public school to lead the way in devising means for the solution of the problem. The schools command four to six hours per day of the child's waking time, and for from eight to ten months of the year. The church reaches less than fifty per cent of the children of the land, and these but once a week for one hour.[3] All children except orphans, and in many cases half-orphans, are reached by home influences, but in the crowded city slums and the backward rural sections very little is to be hoped for from the prevailing type of home in the way of moral and ethical instruction. The public school is therefore the logical agency to undertake the task of establishing standards and developing methods of training and guidance along moral and ethical lines.

Statement of aims in moral guidance. Moral guidance involves all those exercises and activities designed directly or indirectly to develop a sense of moral values, and, through participation in such exercises and activities, to stimulate

[1] Eaton, T. H. "Development of Moral Character in the Public School System"; in *School and Society*, vol. 15, pp. 99–103.

[2] Porter, S. R. "Moral Conditions in the United States"; in *Religious Education*, vol. 4, pp. 197 ff.

[3] Athern, Walter S. *Indiana Survey of Religious Education*, p. 62. Doran Company, New York, 1923.

the formation of appropriate habits, characteristics, and ideals of individual and social conduct.

The development of a proper sense of moral values, and the cultivation of habits in line with those moral values or ideals, becomes the task of those interested in the building-up of ethical character. Dewey says:[1]

> Character is the name given to the working interaction of habits. . . . Were it not for the continued operation of all habits in every act, no such thing as character could exist. There would simply be a bundle, an untied bundle at that, of isolated acts. Character is the interpenetration of habits.

It is not possible, therefore, to judge character by isolated acts, but by observed tendencies to act habitually in ways worthy of social approval or reproach. The aim of the school as a social agency should be to stimulate and encourage the cultivation of those tendencies to act habitually in ways that are socially beneficial, and to discourage or seek to inhibit those tendencies which are contrary to the common good.

Among the desirable character traits which the school should seek to cultivate may be mentioned: self-control, self-reliance, reliability, honesty or integrity, fair-play, co-operativeness, clean-mindedness, kindliness or good-will, and loyalty to best traditions of personal and national morality. These traits will not be acquired by our school children as a matter of course, or accidentally from the pursuit of the ordinary routine of the school program of studies. If boys and girls are to be led to apply moral judgments to their acts, with a view to repeating and making habitual those acts which are socially praiseworthy, it is necessary to train them in the ability to foresee the personal and social

[1] Dewey, John. *Human Nature and Conduct*, pp. 38–40. Henry Holt & Co., New York, 1922.

consequences, for good or evil, of what they do or think of doing. On this point Dewey says:[1]

> In order to act properly he needs to view his act as others view it; as a manifestation of a character or will which is good or bad according as it is bent upon specific things which are desirable or obnoxious. There is no call to furnish a man with incentives to activity in general. But there is every need to induce him to guide his own action by an intelligent perception of its results. For in the long run this is the most effective way of influencing activity to take this desirable direction rather than that objectionable one.

The aim of moral training and guidance is not, therefore, to develop automatons, capable of reacting always according to so-called moral codes or rules of thumb. The aim is rather to develop self-directing personalities who have learned to view an act contemplated with "an intelligent perception of its results." This training in ability to make moral judgments is fundamental. Automatic adherence to a fixed code means rigidity, while cultivation of standards of moral judgment as a concomitant of training in specific moral habits gives flexibility. The desire for purely automatic moral reactions is born of the idea that morals are fixed, permanent, and inflexible, while training with a view to the development of capacity for forming moral judgments as a basis of action implies the relativity of moral standards, and admits the necessity of adapting personal standards to changing social situations, and this requires the exercise of moral judgment.

II. Moral Guidance through Direct Instruction

Rating of direct instruction in morals by high-school principals. In the recent survey of secondary education in California the high-school principals were requested to rate

[1] Dewey, John. *Op. cit.*, p. 121.

nine different influences, in the rank order of their importance as means of developing the moral and ethical traits of high-school pupils. Replies from 187 high-school principals were received, and the results tabulated as in Table VIII. It will be seen from this presentation of the rank order of the principal's judgments that direct instruction stands at the bottom of the list — that is, ninth in rank, and that it is sixty-three points below its nearest neighbor, "Advisory System."

Although "direct instruction in morals," in the judgment of the high-school principals, has the least value of the agencies mentioned, Table IX shows that 120, or 64 per cent, of these same principals claim to be offering direct instruction in morals in their schools. This apparent discrepancy between their judgments of the value of direct instruction and their practice in regard to it is explainable on the ground that when asked to rank direct instruction in morals in relation to other agencies they were thinking of formal instruction in organized classes. When asked if morals were taught directly in their high schools they answered yes, if occasional lectures on moral topics were given to the students in general assemblies, or in segregated groups on matters of sex hygiene, etc.

Moral instruction through lectures, assemblies, etc. The extent to which moral and ethical topics are featured in special talks and lectures is shown in Table IX. Principals or deans are mentioned 54 times as the persons giving such lectures; teachers, 18 times; physical directors, 8 times; outside speakers, 43 times; and organized classes, only 13 times. Principals report that one of their most difficult administrative tasks is to discriminate between the desirable and the undesirable among those who volunteer to give "moral talks" to their students. There are so many special pleaders for "isms" and fads in morals that no one should be per-

TABLE VIII. RANK ORDER OF INFLUENCES WHICH PROMOTE THE DEVELOPMENT OF DESIRABLE MORAL QUALITIES AMONG HIGH-SCHOOL PUPILS [1]

JUDGMENT ON CONTRIBUTION TO MORAL QUALITIES OF:	I	II	III	IV	V	VI	VII	VIII	IX	Total	Average Rank
1. Personal influence of teachers	135	20	7	4	6	0	0	1	0	173	1.44
2. Daily lessons	9	48	27	20	14	15	8	6	5	153	3.78
3. Athletics	7	36	37	33	18	15	13	2	3	164	3.87
4. Student clubs	4	18	23	22	21	18	15	14	8	143	4.88
5. Self-government	6	13	17	20	17	12	16	15	9	125	5.06
6. Reading, literature	2	10	18	17	22	22	17	10	15	133	5.41
7. Student assemblies	4	8	18	23	15	20	19	20	10	146	5.46
8. Advisory system	1	13	12	12	21	13	17	23	5	117	5.48
9. Direct instruction	3	6	12	12	13	14	14	18	25	117	6.11

[1] Proctor, W. M. "Moral Guidance"; in *Report of the Committee of Fifteen, California High-School Teachers' Association*, Table IIIa, pp. 117–18. San Francisco, 1923.

mitted to speak before a high school assembly whose credentials are not of the very best. Also the principal should assure himself that the message to be delivered is sane, wholesome, and entirely free from bigotry, cant, and freakish bias. Otherwise more harm than good may come from a given talk or lecture.

TABLE IX. LECTURES, ASSEMBLIES, AND ORGANIZED CLASSES AS MEANS OF TEACHING MORALS IN CALIFORNIA HIGH SCHOOLS [1]

Morals taught through the mediums of:	*Times mentioned by principals*
1. Periodic lectures on miscellaneous moral topics:	
(*a*) By teachers in their regular classes	18
(*b*) By principals or deans	54
(*c*) By physical directors	8
(*d*) By outside speakers	43
2. Organized classes in morals using prescribed text	13
3. Occasional lectures on sex hygiene and morals:	
(*a*) By principal or deans	25
(*b*) By physical directors	16
(*c*) By physician or nurse	36
(*d*) By Y.M.C.A. or Y.W.C.A. secretaries	3
4. Sex hygiene or morals taught in connection with regular classes:	
(*a*) By physical education teachers	45
(*b*) By biology or hygiene teachers	51
(*c*) By teachers of other sciences	21

Sex hygiene. This is a phase of social and moral training which is peculiarly difficult to provide for.[2] There is even more danger that such instruction will have just the opposite effect from that which is intended than is the case in lectures on general moral topics. Physicians and nurses, with an occasional Y.M.C.A. or Y.W.C.A. secretary, appear to be the outside speakers most frequently called upon. Since

[1] Proctor, W. M. "Moral Guidance"; *op. cit.*, Table IIIb, p. 118.

[2] Edson, Newell W. "Sex Instruction in the High School"; in *School Review*, vol. 29, pp. 593–602.

the school nurse or school physician is a regular school official, it reduces to a minimum the outside speakers called upon, and this is as it should be.

The teaching of sex hygiene as incidental to other subjects [1] is perhaps the most natural and least harmful way to handle it. Biology,[2] hygiene, and physical-education teachers have the best opportunities to give helpful, practical, and effective instruction in this field. Some of the scientific aspects of the subject may properly be handled in mixed classes, but the social and moral aspects should be handled through segregated groups. Greater frankness on the part of the speaker and wider freedom of questioning on the part of the pupils is thus promoted. The admitted difficulties in the way of a helpful presentation of the vital aspects of this important subject should but stimulate high-school administrators in their search for *the best way*. Makeshifts and half-measures should be shunned as one would shun a plague.

Moral instruction and guidance through organized classes. The small amount of faith in the efficacy of organized instruction in morals in regular classes was expressed by the principals of California high schools, who placed it at the bottom of the list in Table VIII. Again in Table IX, only 13, or 7 per cent, of the principals reporting claim to offer such instruction through organized classes, while more than 60 per cent of them claim to offer moral instruction through lectures or incidental to regular class work. The objections to such classes are: first, that suitable textbooks are not available; second, that teachers capable of handling such classes are very few and far between; and third, there is a

[1] Jordan, David Starr. "Nature Study and Moral Culture"; in *Proceedings of the National Education Association* (1896), p. 136.

[2] *The Place of Sex Instruction in Biology and General Science.* United States Public Health Service, V. D. Bulletin (1919) no. 41.

tendency for the class work to take the form of dry-as-dust discussion of abstract ethical problems, far removed from the daily lives of the pupils.

Some of the advantages of direct instruction in classes are thus stated by Neumann:[1]

> In the hands of enthusiastic, well-trained teachers, courses of this kind may do much to expand and deepen the moral insight of young people, to promote a habit of moral thoughtfulness, and to elevate their purposes. By providing place for this subject the school emphasizes the fact that it considers moral thinking sufficiently important to receive specific attention. . . . Moreover, a distinct course offers greater chance than incidental instruction to develop the broad, far-reaching principles that growth in character requires. Particularly is this true in a democracy pledged to progress. If conduct is to be other than conventional morality, or slavish obedience to whatever happens to be the prevailing code, surely there must be careful thinking upon underlying principles. Quiet, earnest reflection upon these principles at regular times, under the guidance of the right kind of teacher, is therefore a need of which the young people themselves may not be particularly conscious, but which, in these days of extremely hurried living, is important enough to deserve every encouragement.

The objection to organized instruction in morals, based on lack of suitable textbooks, is being met by the publication of available texts designed to meet the growing demand.[2] A considerable number of the high-school principals who reported their schools as not having organized classes, claimed that, if appropriate texts could be had, they would undertake the organization of regular classes. The great difficulty confronting textbook writers in this field is how to adapt content and method of treatment so as to interest adoles-

[1] Neumann, Henry, *Moral Values in Secondary Education.* United States Bureau of Education, Bulletin (1917) no. 51, p. 8.

[2] See bibliography at end of this chapter for possible texts to be used in organized instruction in morals; also *Oregon State Teachers' Association Quarterly,* vol. 6, pp. 47–57.

cents.[1] It is difficult to avoid too simple or a childish treatment on the one hand, and too technical and abstract a treatment on the other hand. The most satisfactory texts will undoubtedly be written by successful high-school teachers of the subject, embodying the materials and describing the methods which they have found satisfactory.

The selection of the teacher to handle the class in morals is of greater importance than the discovery of a satisfactory textbook. It goes without saying that such a teacher must possess high moral qualifications, since precept without example is fatal to the real purpose of such a course of study. The moral character of the teacher, however, must be of the positive, contagious type, rather than the negative, neutral type. The teacher of such a class must be capable of combining the practical and the ideal, must have sympathetic insight, and be capable of being the personal, friendly confidant of the members of the class. For this reason such classes should, if possible, be segregated, with a woman teacher for the girls and a man teacher for the boys. If these teachers proved to be of the right sort for the work assigned, they would soon develop naturally into social and moral guidance counselors, to whom the boys and girls would feel free to go for help in the solution of their intimate personal life problems.

Moral guidance and instruction through out-of-school agencies. Reference has been made to the weakening hold of the church and the home upon present-day children. Since it is impossible for the school to assume the entire burden of moral instruction, and since it is not expedient to undertake the giving of religious instruction in the public

[1] See publications of Character Institution, Chevy Chase, Washington, D.C.: (*a*) *The Iowa Plan*, which won the $20,000 award in 1922, chap. v, pp. 25–32, and chap. viii, pp. 36–37. (*b*) *The Five-Point Plan* for character education in elementary-school classrooms, described in *Journal of Educational Research*, vol. 10, p. 332.

schools, it would seem to be advisable for the schools to encourage coöperation on the part of these supplementary agencies.

Instead of insisting upon Bible reading in the schools,[1] which at best is a doubtful expedient, the more satisfactory method would be to enlist the coöperation of all churches, of whatever faith, in the giving of suitable religious and moral instruction to the children of their own members. Inasmuch as religious education is admittedly the weakest phase of church activity,[2] there should be no great difficulty in getting the churches to recognize the advantage of cooperative effort along constructive lines. There are already a number of promising experiments. Among those best known are:

In *Indiana* [3] a syllabus, covering questions of fact relating to the Old and New Testaments, and also questions of literary and historical values, is prepared by a committee representing the participating high schools. Examinations are prepared and papers are graded by other committees. A fee of twenty-five cents is charged to cover the expenses. In 1921 there were 171 coöperating high schools. The study preliminary to the examinations may be done by individuals, or in clubs, schools, or Sunday Schools. If the examinations are passed one semester of credit may be earned toward graduation. In the five years of the operation of the plan, 6,933 high-school pupils have taken the examinations, of whom eighty per cent have earned passing grades.

At *Batavia*, Illinois,[4] all of the children of the elementary grades of the public schools are released to go to their respective churches for an hour or more of religious instruction. Grades 1, 2 and 3, are released at 9 A.M.; grades 4, 5 and 6, at 10.30 A.M.; grades 7 and 8,

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[1] Pittinger, B. F. "The Status of the Bible in the Public Schools"; in *Educational Administration and Supervision*, vol. 9, pp. 233–51.

[2] Athern, Walter S. *The Indiana Survey of Religious Education*. Summary of chap. XIII, pp. 409–10. Doran Company, New York, 1923.

[3] Athern, Walter S. *Op. cit.*, chap. XXI, p. 543 ff.

[4] Hoag, Victor. "Week-Day Religious Instruction in Batavia, Illinois"; in *Religious Education*, vol. 15, pp. 307–09.

are released from 1.15 to 2.30 P.M. The classes are held on Thursdays, each week, and are taught by the ministers, assisted by volunteer teachers. All but 15 of the 725 elementary children at Batavia were attending these Thursday courses for religious instruction and training in 1920, the second year of the experiment. Neither the high school nor the kindergarten are included, and school credit is not given for the work. Attendance, however, is reported to the public schools. All churches, with one exception, are coöperating.

At *Evanston,* Illinois,[1] the classes in religious education are held in the public school buildings for thirty-minute periods each school day, from 8.15 to 8.45. The Evanston Council of Religious Education employs an executive officer who performs the administrative and supervisory functions of a superintendent of religious education. A community training school for teachers of the religious education classes is maintained, and the teachers are paid for their services. General interest in the work is shown both by the enrollment in the courses and the support given to the movement financially and otherwise by the coöperating agencies.

Difficulties in the way of such coöperative efforts as have just been described will, of course, be encountered. The school laws of some States forbid the use of school premises for religious instruction, or the release of children during specified school hours for other than public school exercises. Also there is the difficulty of securing a sufficient degree of unanimity among church organizations to ensure the success of such a movement. There have been so many successful attempts, however, and such a variety of difficulties have been surmounted that the above examples of successful operation, in the face of almost every combination of circumstances, may serve to encourage progressive communities in launching similar undertakings adapted to their own peculiar needs.

[1] Stout, John E. "Community Projects in Religious Education"; in *Religious Education,* vol. 15, pp. 310–11.

III. Moral Guidance Values in Student Activities

Student coöperation in school government. In the chapter on "Social and Civic Guidance" reference was made to the value, from the standpoint of citizenship, of student participation in school government.[1] Opportunities for the development of desirable moral habits and attitudes are also abundant in connection with such activities. Perhaps the most essential virtue of a citizen is self-control, and the next most important is ability to coöperate cheerfully and helpfully with others. Coöperation in school government gives opportunity for the development of both of these virtues.[2] The arbitrary, militaristic form of school government and discipline may appear on the surface to be very efficient. Rules or laws are promulgated from the administrative office and enforced with severe penalties. Principal and teachers must become police and judicial officials, arrayed against presumptive law-breakers. Repression leads to antagonism and the development of a spirit of resistance to arbitrary authority. Since the situation simulates warfare, the students tend to consider any method of getting the better of the teachers as legitimate. They may learn ingenuity and develop audacity in devising new schemes for getting around obnoxious regulations or evading punishments, but they do not learn self-control or coöperation in the best sense.[3]

In Table VIII, "self-government" was rated fifth among the agencies for promoting desirable moral qualities. A considerable number of principals rated it sixth, seventh, eighth, or ninth, on account of unfortunate experiences of

[1] See Chapter VIII, "Guidance in Social and Civic Activities."

[2] Horst, H. M. "Student Participation in High-School Responsibilities"; in *School Review*, vol. 32, pp. 342 ff.

[3] Satchell, Kenneth. "Student Participation in School Administration"; in *School Review*, vol. 30, pp. 732 ff.

their own in undertaking to carry out such an enterprise. Failure was due in many instances to ill-considered initiation of the "self-government" plan, and in others to lack of proper guidance and supervision in the carrying-out of plans in themselves workable. The greatest measure of success attends those plans which take the form of student cooperation in matters of discipline, community projects, care of grounds, care of buildings and apparatus, and in matters pertaining to management of school clubs, papers, athletic teams, and other enterprises.[1] Joint participation of students and teachers in all school affairs, with mutual recognition by all interested parties of responsibility both for the initiation and carrying-out of plans or regulations adopted, tends to promote both self-control and a spirit of coöperativeness.[2]

Athletics. The third place as an agency for promoting the moral standards of high-school pupils was given to athletics by the high-school principals reporting, as shown by Table VIII. In the minds of 43 of the principals, or 26 per cent of those voting, athletics deserved first or second place as an agency for moral development. However, there were 33 principals, or 20 per cent, who rated athletics fifth, sixth, seventh, eighth, or ninth. Apparently there are two sides to the story of athletics as a moral factor in high-school life, since a considerable number of high-school administrators seem to feel that the influences that are harmful may easily offset those ordinarily thought of as beneficial. The dark side of the picture is thus painted by a recent writer in *The School Review*:[3]

[1] Hayden, Floyd. "Democracy in High School Government"; in *School Review*, vol. 30, pp. 187–92. (Contains constitution of Welfare Council of Citrus Union High School, California.)

[2] Gibson, Jessie. "Experiments in Social Education"; in *School Review*, vol. 30, pp. 613 ff.

[3] Howe, C. M. "The High-School Teacher and Athletics"; in *School Review*, vol. 31, pp. 781 ff.

Rivalry between certain schools has become so intense that players meet in a spirit of hatred and revenge, and special policing is necessary to guard against outbreaks of hostility between rival rooters. Very naturally, along with this goes an exaltation of, and a seeking after, athletic prowess that smacks of professionalism. In certain cities in Ohio it is common knowledge that many athletes attend school periodically and only for special sports. They are never ineligible, and some of them have been in high-school athletics for a long term of years, shifting from school to school in order to conform to the letter of the rules. As a result, some of the teams develop almost collegiate skill and strength, with "win-at-any-price" attitude which makes it unsafe for a *bona-fide* lighter high-school team to encounter them. And to their shame, more and more of our colleges have taken to scouting for high-school athletes of promise and to luring them by well-concealed proffers of payment or advantage which tend even more to undermine the amateur attitude of sport for sport's sake in our high schools.

Not only is there the positive influence for evil which attends the prostitution of athletics in the spirit of "win-at-any-price," and the professionalizing of players, but there is another source of moral degradation in the character of many of the coaches engaged to handle high-school teams. This was brought home to the writer in a striking fashion in an interview with the educational director of a certain industrial school for delinquent boys. In this school the effort was being made to make athletics a source of moral as well as physical development for the boys who participated. The educational director reported that the greatest difficulty was encountered in finding high-school teams with which they felt safe in having their boys compete. All too often the results of months of careful training in sportsmanlike conduct, decent language, fair-play, etc., went glimmering through contact with a high-school team which had been coached in all the arts of "dirty" sport. Foul language and "nasty" rooting, added to tricky and unfair methods of playing, did not tend to strengthen the bonds of clean-sport

habits which the school for delinquent boys had been endeavoring to set up.

The positive moral benefits of athletics, however, when properly cultivated, are so great that the existence of recognized evils should act as a stimulus to improvement, rather than as a basis for the elimination of games and sports. Among the moral habits or ideals capable of development by means of properly conducted athletics may be mentioned self-control; loyalty to a cause or an institution; self-effacement, or willingness to sacrifice one's own desires in the interest of the common welfare; and teamwork, or coöperation with others for the accomplishment of a common task.[1] Such habits and ideals, as has already been intimated, do not just naturally happen. Their opposite may easily be the outcome. The athletics of a high school should be conducted with clearly defined objectives, including the realization of specific moral values if such values are to be achieved.[2] There must be a careful building up of high-school standards along these lines, and particularly must there be a careful consideration of the character of the men and women who coach and manage high-school athletic enterprises. Much will be accomplished in this direction if high-school athletics are thought of not in terms of school glory and school advertising, but in terms of the physical and moral development of all high-school pupils.

The honor system in tests and examinations. When asked by the Committee of Fifteen if they employed the honor system in tests and examinations in their high schools,

[1] Naismith, Dr. James. "High-School Athletics"; chap. XVII of Johnston's *Modern High School*, pp. 436–38. On character value of high-school athletics.

[2] Hetherington, C. W. *School Program in Physical Education*, sec. 2, pp. 87–104. On training in character, morals, and manners. World Book Company, Yonkers, 1923.

36 principals, or 18 per cent, said that they did, while 151, or 81 per cent, said that they did not.[1] Those who favored the honor system claimed that it relieved the teachers from the duty of acting as policemen, and that it encouraged the development of honesty of the positive type and resulted in distinct gains to character. Those who opposed the honor system claimed that it neither eliminated nor materially reduced cheating, but, on the contrary, was a means of leading many students into temptation. Reluctance of student officials to penalize violators of the honor rule was also cited as a chief cause for the breaking-down of the plan. Those who reported employing the plan, to the extent of 31 out of 36, claimed that it was successful. The success of the plan appears to depend both upon the character of the student body and upon the tact and leadership of the high-school principal.[2]

The reaction of the high-school students themselves to the benefits of the honor system are reported by Peters as follows:[3] When asked if they thought there was more or less cheating under the honor system, 19 per cent said there was more, and 81 per cent said there was less. Asked if the honor system increases boys' sense of responsibility by removing supervision, 90 per cent said that it did, and 10 per cent said it did not. Asked if the honor system promoted better feeling between teachers and pupils by relieving teachers of police duty, 85 per cent said it did, 15 per cent said it did not. On the question as to whether public opinion in the school was against cheating, 83 per cent voted "yes," and 17 per cent voted "no." The honor system had

[1] *Report, Committee of Fifteen, California High-School Teachers' Association*, p. 121.

[2] Mattfield, H. W., Jr. "Some Practical Aspects of the Honor System"; in *School Review*, vol. 32, pp. 688–93.

[3] Peters, Harry A. "The Honor System in Secondary Schools"; in *School Review*, vol. 32, pp. 36 ff.

been in successful operation in the school questioned — the University School, Cleveland, Ohio — for five years.

Ephebic societies. There is a rapid growth of high-school organizations designed to promote the development of desirable moral and social qualities. In the Hollywood and other Los Angeles, California, high schools, the student body elects one out of every forty members of each senior class to the Ephebic Society. The qualifications include scholarship, leadership in student activities, and the exercise of school-citizenship virtues of a high order. Upon election, the members of the society take the sacred ephebic oath of the Athenian youth about to assume the duties and obligations of citizenship.[1] Membership in this society is an honor greatly prized, and its influence is said to be pronounced in the cultivation of many desirable social and moral qualities.

It might be argued that virtue should be its own reward, and that to single out individuals for distinction on account of supposed moral excellence might tend to develop pride and other undesirable traits in those selected for the honor. The effort, however, is not to exalt individuals, but to emphasize the moral qualities which they have displayed and thus to create a favorable atmosphere for the cultivation of similar virtues in others. Moral qualities are thus accorded a place of equal importance with scholastic and athletic prowess.

IV. Teacher and Subject in Relation to Moral Values

Moral values in secondary courses of study. Daily lessons occupied second place in the minds of high-school principals as a means of developing moral habits and attitudes. In Table VIII, 84, or 55 per cent, of the principals

[1] Cubberley, E. P. *History of Education*, p. 35. Houghton Mifflin Company, Boston, 1920.

voting on that item, accorded daily lessons first, second, or third place in the scale of nine. Such habits as perseverance in the face of difficulties, punctuality, self-reliance, neatness, accuracy, and honesty were mentioned as possible of cultivation in connection with the preparation and participation in the daily recitations.

Business men and manufacturers, who employ the graduates of our schools, complain that they have not been trained in the cardinal virtues of business and industrial life. In the world of occupations the essential moral qualities are enforced by fines, loss of promotion points, demotion, or loss of position. Hence it is no kindness to a high-school pupil to permit him to make progress in his studies by the performance of his tasks in a slipshod, slovenly manner. It is not necessary for a high-school teacher to be a martinet in order to hold his pupils up to such a standard of accomplishment as will result in improved moral habits and attitudes

High-school subjects may also be so taught as to result in moral inspiration and a better understanding of the inner meanings of life — that is, in the formation of moral and social ideals or standards.[1] This can be brought about through the discussion of the moral bearings of the facts and principles encountered in the daily lessons. This is not to say that a moral should be tacked to every tale, or that the teachers should obtrude "preaching" into their instruction. It does imply, however, that whenever an opportunity presents itself to introduce simply and naturally the discussion of a live moral issue it should be done. To this end, then, the teacher should devote some careful thought and attention to the best "times and seasons" for introducing such elements into the regular exercises connected with his subject. Space does not permit a detailed discussion of the

[1] Neumann, Henry. *Moral Values in Secondary Education;* United States Bureau of Education, Bulletin (1917) no. 51, pp. 20–35.

moral values peculiar to each subject, but the thoughtful teacher will be able to discover them, and will secure the best results by developing his or her own method of treatment. On the subject of teaching morals through the social studies, James has this to say:[1]

> Teaching morals through the social studies is then primarily a matter of moral instruction. This in turn involves a moral teacher, a moral atmosphere in the classroom and directly social methods of instruction. Dishonesty, insincerity, unreliability and bluff on the part of the teacher in any subject are quickly apprehended by our sophisticated youth and will defeat the effect of material considered, however abstractly moral the material may be. . . . In turn the most perfect method of instruction if it be not founded on learning through social experience is defective.
>
> On the other hand, the moral value in the social studies of sound information, careful planning, honest preparation, intellectual honesty, disinterestedness in propaganda and thoroughness on the part of the teacher; of regularity, preparedness and honesty on the part of the pupil, and of coöperative and social methods of procedure, is greater than all the material "about morals" in all the syllabi, manuals, texts, and other devices that have ever been originated.

Personal influence of teachers. The personal influence of teachers, as a means of conserving moral values, was given first place by 135, or 78 per cent, of the high-school principals who sent replies on that question. The reason for this belief in the personal influence of teachers, as a determining factor in the creation of moral and ethical values, is well put by Coe:[2]

> More than anything else, education in its initial stages is the propagation of character through imitation working by suggestion. In the long run, what a teacher or a parent gives to the young is just one's self. What one is in both mental and bodily habit is

[1] James, A. P. "Teaching Morals through the Social Studies"; in *School and Society*, vol. 21, p. 93.

[2] Coe, George. *Education in Religion and Morals*, pp. 173, 180. Revell Company, New York, 1904.

transmitted, either by means of the method or in spite of it. . . . The young life comes in contact with a wholesome or unwholesome personality and catches its spirit as if by infection.

No amount of direct instruction in morals, or of drill in specific moral habits and attitudes, can accomplish much in the way of developing ethical character in high-school girls and boys unless there is also present the element of personal leadership and inspiration along character-developing lines in the high-school teaching staff. Too many high-school teachers are either neutral or colorless in character. They are neither positively good nor positively bad. Teaching to them is a kind of hack work, to be turned off with the expenditure of as little vital energy as possible. No feeling of responsibility for the development of ethical character as an essential objective in teaching disturbs their equanimity. Such teachers have no place in a character building institution, such as a high school ought to be.

The moral guidance program of a high school must have, therefore, for its successful operation, the support of a group of virile teachers. Church affiliation, which appears to worry a great many school administrators, is of much less importance than outstanding moral qualities, coupled with a live and sympathetic interest in young people and their problems. Ethical character in action, in the persons of inspiring teachers, will do more toward the development of desirable moral habits and attitudes in the pupils of a high school than will any formal course of instruction, however well planned. The ideal situation would of course be that in which teachers, possessing high ideals and forceful personalities, should become sponsors for character-building student activities, and the instructors in courses of study in morals designed to meet local needs and conditions.

QUESTIONS AND PROBLEMS FOR FURTHER STUDY

1. Ninety per cent of those who become members of churches in the United States join between the ages of twelve and twenty. What is the bearing of this fact upon moral training in the public schools?
2. Murchison found that there are more college men in prison than would be expected from the ratio of college graduates to total population. Is education alone a sufficient morality insurance?
3. Suppose we find that juvenile delinquency is on the increase; what is the explanation? What should be the attitude of the public school toward the situation?
4. A prominent woman educator claims that it is immoral to give children tasks to perform which are distasteful to them. Do you agree?
5. The president of a great Foundation claims that the work which we give our high-school pupils is too easy, and that this accounts for the present wave of adolescent immorality. Do you agree?
6. Make a survey of all the children attending the Sunday Schools of a given community on a certain Sabbath, and compare this number with the total enrollment of the public schools of that city or town. What proportion of the children are in Sunday Schools?
7. Visit the Sunday School or Young People's Society of your own church and make note of the teaching methods, or methods of religious training employed. How do these compare with public school standards in methods and teaching efficiency?
8. What are the arguments for and against the use of the Bible in the public schools?
9. Investigate at first hand, or read up on, some experiment in school and community coöperation in the matter of religious education, other than those cited in the text.
10. How do you account for the attitude of a majority of high-school principals in relation to the honor system in high schools?
11. Outline a workable plan for organizing physical education in such a way as to realize the maximum of moral values from the activities included in the program.
12. Make an analysis of the personal qualities outstanding in those people who have influenced your own life most profoundly from the standpoint of character development.

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CHAPTER XII

GUIDANCE IN MAKING VOCATIONAL CHOICES

I. Aims and Functions of Vocational Guidance

Definition. Vocational guidance [1] embraces all those school activities specifically designed to assist individual pupils in learning about, choosing, preparing for, entering upon, and making progress in occupations. There are two points in the above definition to which attention should be called.

First, for the purposes of this chapter, only "school activities" — that is, such activities as might be incorporated into the program of any school — will be treated. Much that may properly be designated as "vocational guidance" is carried on by outside agencies, such as private foundations, business or industrial concerns, and the like. Interesting as it might be to make excursions into the fields now occupied by the agencies just mentioned, it will be necessary, on account of space limitations, to confine ourselves to the "in-school" aspects of vocational guidance.

Second, the phrase "designed to assist" is employed designedly. There is much criticism of the vocational-guidance movement, some of it justified, on the ground that to advise a child with regard to a life-career is an unwarranted interference with destiny. It cannot be made too clear, therefore, that guidance does not assume prophetic insight on the part of the counselor, and, further, that it is not fortune-telling or the arbitrary forcing of a young life

[1] *The Revised Principles of Vocational Guidance*, authorized by the National Vocational Guidance Association in 1924, published by the Bureau of Vocational Guidance, Graduate School of Education, Harvard University, Cambridge, Mass.

along supposedly predestined ways. School guidance assumes common sense on the part of the counselor. It assumes that the counselor will know that a vocation or life-career is not some fixed and inevitable destiny, which if missed means lifelong regret, but which if found assures happiness and success. The school counselor will know that in every occupation there are people of differing intellectual abilities, temperament, eye-color, nose-length, and chin contour who succeed; also that in every occupation there are people who have attained the highest success who, if they had happened to choose some other occupation, would have succeeded to just as great an extent in that one. The counselor, with common sense would likewise be familiar with the fact that there are people possessing all of the theoretical qualifications, plus all the requisite training for a given occupation, and having in addition a consuming desire to succeed in that occupation, who utterly fail; while others, lacking every qualification which a mechanical scheme of guidance might lay down as essential, insist on following an occupational ambition and achieve success in it.

What has just been said will serve to illustrate what was meant by the words "designed to assist children in learning about, choosing, preparing for, entering upon, and making progress in occupations." If the proper attitude toward counseling is taken, it will mean that the occupational choices of children will be considered as tentative; that final choice will be postponed as long as possible, in order that there may be a wide range of exploration of the child's special interests, aptitudes, and abilities; and that these tentative choices will be utilized to motivate school work and prepare the child for the ultimate goal of guidance — that is, self-guidance.

When thought of in this way, school guidance in vocational choices becomes, not officious destiny fixing — pre-

destination gone to seed — nor yet a kind of sleight-of-hand trick in vocational prophecy, but simply an organized effort to inform boys and girls with reference to the opportunities which await them in the doing of the world's work; to assist them in making a wise selection among the many possible life-careers open to them; and to aid them in finding the paths of preparation which are most apt to lead to success in their chosen calling.

Practical need for vocational guidance in our schools.[1] Table X summarizes the conditions in the United States with reference to children ten to fifteen years of age, in-

TABLE X.[2] CHILDREN TEN TO FIFTEEN YEARS OF AGE, INCLUSIVE, GAINFULLY EMPLOYED, ACCORDING TO THE 1920 CENSUS OF THE UNITED STATES

	BOTH SEXES	MALE	FEMALE
Total population of the United States of the ages ten to fifteen, inclusive.	12,502,582	6,294,985	6,207,597
Total number of above, who are gainfully employed	1,060,858	714,248	346,610
Occupations in which children ten to fifteen are employed:			
1. Agriculture	647,309	459,238	188,071
2. Extraction of minerals	7,191	7,045	146
3. Manufacturing and mechanical ind	185,337	104,335	81,002
4. Transportation	18,912	15,617	3,295
5. Trade	63,368	49,234	14,134
6. Clerical	80,140	59,633	20,507
7. Public service	1,130	1,085	45
8. Domestic and personal service	54,006	16,082	37,924
9. Professional service	3,465	1,979	1,486

[1] Dickson, Virgil E. "The Need of a Counseling Program"; in *Journal of Educational Research*, vol. 11, pp. 12–16.

[2] Compiled from a mimeographed bulletin sent out by the Department of Commerce of the United States, August, 1922.

clusive, who, according to the Census of 1920, are engaged in gainful occupations. This tabulation shows that there are 1,060,858 children, of the ages mentioned, at work for wages — 714,248 boys, and 346,610 girls; and that this number constitutes 8.4% of the total number (12,502,582) of boys and girls ten to fifteen years of age, inclusive, who were living in the United States in 1920. This means that, at the time of enumeration, every twelfth child in this country of the ages included in Table X was gainfully employed.

In citing the number of children ten to fifteen years of age, inclusive, who are gainfully employed in the United States as an indication of the need for vocational guidance in our schools, there is not the slightest intention to approve existing conditions. On the contrary, there is every reason for holding to the belief that every child should be in school, or under school oversight until at least age sixteen, and possibly until age eighteen. But, since the present situation is such that every twelfth child of the ages ten to fifteen, inclusive, is actually engaged in a gainful occupation, and that others of the same ages will continue for some time to leave school to go to work, there is nothing left for the school to do but to assume its share of responsibility for seeing that these boys and girls are given the best guidance and training possible while they remain in school. Particularly binding is the obligation to provide continuation schools for the children of this group, in order that they may have opportunity to continue their interrupted general education, and may receive help in making progress in present occupations or in finding new employments better suited to their needs and abilities.

Table XI gives the total number of youths of ages sixteen, seventeen, eighteen, and nineteen, according to the Census of 1920, together with the percentages in each age group who are in or out of school.

TABLE XI.[1] SHOWING NUMBER AND PERCENTAGE OF YOUTHS SIXTEEN TO NINETEEN YEARS OF AGE, INCLUSIVE, WHO WERE IN SCHOOL OR OUT OF SCHOOL, IN 1920

AGE YEAR	TOTAL NUMBER	PER CENT IN THE SCHOOLS	PER CENT OUT OF THE SCHOOLS
16	1,972,948	50.7	49.3
17	1,855,191	34.6	65.4
18	1,910,046	21.6	78.4
19	1,830,934	13.8	86.2
Totals	7,569,119	30.5	69.5

Seven out of every ten youths sixteen to nineteen years of age, inclusive, are either at work, or unemployed, or at home engaged in household tasks. Beginning in late childhood, age ten, and continuing through adolescence, there is a continuous decline in the school-attendance curve, until, at age nineteen, we find fewer than fourteen per cent of the youth of our land of that age in any type of school, either public or private. These drop-outs are the ones most in need of vocational information and of counsel in making their initial vocational choices.

A total ignorance of the real situation is shown by those who raise the objection against vocational guidance in the public schools that it might tend to encourage school-leaving. Elimination is an actual fact, not a theory; hence the choice is simply between permitting this great army of youths, who leave our schools, to enter the fierce battle of economic competition at haphazard, as is the case at present, or of attempting to give them assistance in finding the type

[1] Taken from statistics of school attendance given in vol. III, *United States Census*, 1920, p. 15.

of work for which they are fitted, and in the performance of which they will not waste their moral and physical resources. Instead of inciting children to leave school, true vocational guidance tends to give them a real incentive to remain longer in school. It not only points out the advantages of further general education, but it insists on the necessity for specific training before entering a gainful occupation.

There is, therefore, both the concrete evidence of the great need of vocational guidance in our schools, and an abundance of data to prove that where this vocational guidance is wisely administered, it functions in a better adaptation of the youth both to his educational and his vocational environment.

II. Vocational Guidance in the Elementary Schools

Aims and functions of vocational guidance in the elementary schools.[1] Educational and vocational guidance are so closely allied that the task of separating them, even for purposes of discussion, is a difficult one. Under an ideal system, all positive guidance in the selection of or preparation for vocations in the elementary grades would come in the form of information about all of the more common types of vocational activity. Such information would be desirable in and of itself as a means of acquainting children with the world in which they live, and also of fostering a wholesome respect for work and for the world's workers. There would be no need of specific vocational guidance, because all children would complete a junior high-school course, and during this course guidance in the selection of specific vocational objectives would be given. Unfortunately, we are not

[1] *Pittsburgh Vocational Guidance Bulletin*, pp. 19–25. Pittsburgh, Pennsylvania, 1922. Also, Sears, J. B. "Occupations of Fathers and Occupational Choices of 1039 Boys in Grades Seven and Eight of the Oakland Schools"; in *School and Society*, vol. 1, pp. 752–56.

dealing with an ideal system, either socially or educationally. The problem of guidance must be faced under conditions as they now are. The great majority of our schools are still organized on the 8–4 plan. There are probably not to exceed eighteen hundred junior high schools in the country, and about fifty per cent of these are organized on the 6–2–4 plan, rather than the 6–3–3 plan. The median age of first-year high-school pupils is close to fifteen years.[1] From Table XI it appears that approximately fifty per cent of the sixteen-year-olds have already left school. If, therefore, vocational guidance is to function in the lives of fully one half of the children in our public schools, it must be given prior to the sixteenth birthday — that is, in the elementary school or the first year of high school.

Vocational guidance in the elementary schools will, of course, devote a considerable portion of its activity to the giving of vocational information, somewhat along the lines suggested in Chapter XIII. Aid in the selection of vocational objectives will be given to those who, for one reason or another, expect to leave school upon reaching the legal school-leaving age — fourteen, fifteen, or sixteen, as the case may be. In seeking to discover those who are apt to be the early school-leavers, all the machinery and devices heretofore described in discussing educational guidance will be employed. The prospective early leavers, having been discovered, will be given special attention. The shorter the remaining time to be spent in school, the more important it is that such time shall be applied to worth-while instruction and not dissipated in bootless failures. It is necessary to bear in mind the fact that these early leavers will need to

[1] See age-grade distribution of Paterson, New Jersey, where it appears that 503 of the 631 first-year high-school pupils are fourteen years of age or over. Inglis, A., *Principles of Secondary Education*, p. 5. Houghton Mifflin Company, Boston, 1918.

have assistance in the selection of their initial occupations, and whatever preliminary training for those occupations the public schools can provide. Counselors, who will perform both the educational and the vocational-guidance functions, will understand the importance of advising boys and girls to stay in school as long as possible, both on account of the added training to be had and the improved chances of finding one's permanent occupational field through deferring school-leaving until at least age sixteen.

How vocational guidance is accomplished in the elementary schools. Four chief ways will be mentioned and briefly described. These are:

(*a*) *The classroom teacher.* As in the case of educational guidance, vocational guidance will always be a function of the classroom teacher. It is a reasonable assumption, at the present time, that educational guidance will be better done than vocational guidance, for the simple reason that so few teachers take the trouble to make themselves familiar with the world's work. Not until every teacher-training institution recognizes the fact that vocational as well as educational guidance demands specific training, and makes provision for such training, can we hope to have a generation of teachers prepared to render this service in a scientific manner.

(*b*) *Special counselors.*[1] In small school systems, interested and trained teachers will be assigned to devote part of their time to educational and vocational counseling. One or two of such teachers, giving from one third to one half of their time to this work, according to the size of the building, will ordinarily be provided. These teachers will head up the

[1] See details of vocational guidance in elementary schools of Boston, *Vocational Guidance Magazine*, vol. 3, no. 1, pp. 15–17 (Boston Number, October, 1924).

guidance activities in their schools, coöperating with the classroom teachers, with parents, and with the research unit of the superintendent's office in gathering the necessary data and keeping the cumulative records up to date.[1]

In the larger school systems, full-time counselors will be provided who will likewise coöperate with the classroom teachers, with the principals, and with the Bureau of Research and Guidance in giving individual attention to children about to leave school. The additional function of acting as placement agents in investigating proposed places of employment, and making the reports on which issuance of working permits may be had, is frequently performed by full-time counselors.[2]

(*c*) *Enlisting coöperation of parents.* A feature of both educational and vocational guidance in the elementary grades, which is included in the programs of all progressive cities, is that of enlisting the coöperation of parents in solving their children's problems. The series of letters, sent by the Vocational Guidance Department of the Pittsburgh public schools to the parents of elementary- and high-school pupils, may be taken as an excellent example along this line. These letters are sent out over the signature of the Superintendent of Schools, and cover such topics as: Assist Your Child in Selecting Subjects for Next Year; Does Your Child Need Guidance? Is Your Child Getting Ready? The Value of a High-School Education; Things to be Considered in Choosing an Occupation, etc. The following quotation on the choice of a life-work will indicate the method of treatment of the various subjects: [3]

[1] Toops, H. A. "The Technique of Vocational Guidance"; in *The Vocational Guidance Magazine*, vol. 2, p. 89. (January, 1923.)

[2] Sallaway, Margaret M. "Placement"; in *The Vocational Guidance Magazine*, vol. 3, no. 1, pp. 27–30. October, 1924.

[3] *Vocational Guidance Bulletin*, pp. 21 ff. Pittsburgh Public Schools, 1922.

During these years [in school] has your child selected his life-work? Do not permit the choice to be made without serious thought on your part. Some parents make a mistake by not advising with the child about his plans for life. If your child were going away on a journey, you or your friends would advise him how to prepare for it. The choice of a life-work is far more important; it carries so much responsibility that we shudder when we think how lightly many of our young people drift into their vocations. Have a talk with your child's principal, teacher, or vocational counselor.

When parents and teachers coöperate in the endeavor to assist children in the selection of and preparation for a vocation, it frequently happens that a child, who might otherwise have been permitted to withdraw from school to enter a "blind-alley" occupation, is kept in school, both to his own advantage and to the advantage of society at large.

(*d*) *Appropriate treatment of the vocational content of school subjects.* In view of the progressive school legislation now being enacted by our States, it is not unreasonable to look forward to the day when no child under sixteen will be permitted to leave school to go to work. As an essential feature of this reform movement there will undoubtedly be a rapid development of the movement for the downward extension of secondary education. No child will then be kept at elementary-school tasks beyond the age of fourteen. Most of them will have the opportunity to enter a secondary school, of the junior high-school type, at the age of twelve to thirteen. When that day arrives, as it has already arrived in many American school systems, both the placement function and the specific vocational training function of the elementary schools will be transferred to the secondary schools. The elementary schools will, however, retain their function of exploring individual capacities, keeping a cumulative record, and imparting fundamental vocational information as a basis for guidance later in the selection of a vocation, and

in the cultivation of a sane and wholesome attitude toward all socially worth-while pursuits. Such information can be successfully imparted through appropriate treatment of the subject-matter of existing elementary subjects, without the necessity of adding a new subject to the elementary program of studies.[1] But, in order that it may accomplish the purpose assigned to it, such organization of vocational content must be definitely planned, with appropriate syllabi and available material to be put into the hands of the classroom teachers. Such planning will be done by the principal, the part or full-time counselor in charge of guidance, by a guidance committee in the individual elementary-school building or small school system, or by the central Bureau of Research and Guidance in the large cities.

III. Vocational Guidance in the Secondary Schools

General statement. A number of the essential features of a guidance program, and features which are preliminary to effective vocational guidance, have already been set forth in previous discussions of the exploration of pupil abilities, methods of adapting school work to individual differences, and methods in educational guidance. In the discussion of vocational guidance in high schools, the treatment will be confined, in the main, to certain features of a working program for vocational guidance in secondary schools. The employment of methods and devices common to both educational and vocational guidance, and which have already been discussed in previous chapters, will be assumed. No attempt will be made to separate the vocational-guidance programs of junior and senior high schools, but the attempt will be made to set up a program adaptable to the needs of adolescents, ages thirteen to eighteen, inclusive.

[1] See Chapter XIII, and bibliography at end of that chapter, for further discussion of methods of gathering and imparting vocational information.

Vocational information. Since a detailed discussion of methods of imparting vocational information will appear in the next chapter, it will only be necessary here to state the importance of that feature in a vocational-guidance program. Ignorance in regard to the character of occupations, the opportunities for service and remuneration which they offer, the qualifications of workers, how to secure necessary training, how to make progress in them, etc., is an effective bar to the intelligent selection of a life-work. If a high school can afford but one feature of a vocational-guidance program, that one should be a systematic effort to impart vocational information. This may be accomplished in ways to be suggested later. The important point to emphasize here is the necessity for giving vocational information a chief place in any high-school program for vocational guidance.

Vocational counseling. Before attempting to give counsel to young people with reference to occupations, the high-school counselor should become familiar with and make use of the following:

(*a*) *Personnel records.* He must acquaint himself with all the data, relating to the persons counseled, which are to be found in the office files of the school. If the necessary data are not already available, a question blank should be employed, and the results transferred to cards for use in counseling. Those whose mental-test [1] scores, social status, and expressed intentions point out as the prospective early drop-outs, as in the case of elementary pupils, should be the first to receive the counselor's attention. Personal contacts should be arranged with the members of this group as soon as possible after the opening of school in the autumn, since it is through personal interviews that the counselor is able

[1] See Chapters II, III, VI, and VII, for discussion of various phases of use of mental tests in educational guidance.

to acquaint himself with character traits and other factors which cannot be adequately measured by existing mental, pedagogical, or guidance tests.

(*b*) *Probability tables and personnel charts*, in the construction of which general intelligence, school success, and other factors are taken into account, would be found helpful in making up a tentative list of those pupils who are most apt to drop out of high school within the first two years. Dr. Brewer thinks that the use of such tables is more promising for the average counselor than the working-out of coefficients of correlation. Dr. R. D. Allen, Director of the Vocational Guidance Department of the Providence, Rhode Island public schools, has worked out a usable chart, for grades nine to eleven, which indicates the relations between mental age, chronological age, intelligence quotient and accomplishment quotient, and the desirable educational program indicated by these relations. In addition to the individual pupil's personnel chart, it is possible to use Dr. Allen's charts for an entire grade or division. The teacher can then see at a glance the number of pupils who are overage chronologically, the mental ages of these pupils, and the quality of school work which they are doing. This will give a counselor the data on which to base predictions as to the probable school success and length of stay in school of the different members of a given grade. The peculiar advantage of the Allen charts is that they make it possible to show graphically the relationships and implications of several important factors which have to do with school success.[1]

The application of a probability table to vocational guidance is thus described by Dr. Brewer:[2]

[1] Providence Personnel Charts (in sets of fifty with descriptive booklet), Lippincott Co., Philadelphia.

[2] Brewer, John M. "Is Scientific Counseling Possible"; in *School and Society*, vol. 17, no. 438, pp. 262–66. Quoted with permission of the publishers of *School and Society*, Garrison, New York.

Suppose 3000 tool-makers, by means of a trade test, are divided into three equal groups of 1000 each, according to lowest, highest, and average ability in tool-making. Having distributed these men along the horizontal in their ability as tool-makers, let us now re-examine them with a psychological test, and, without regard to their score in tool-making, classify them along the vertical into three equal groups of 1000 each, lowest, average, and highest, in the psychological test. Omitting the zeros, we might obtain some such representation as the following:

TEST IN TOOL-MAKING

		Low	*Average*	*High*
Psychological tests.	Low	6	3	1
	Average	3	4	3
	High	1	3	6

Advice based on such a diagram may then be given as follows: A boy who is considering tool-making attains a score in the psychological test which falls within the group marked lowest. It appears, on the basis of these data obtained from 3000 cases, that his chance for low-grade work in tool-making are six out of ten, while his chances for high success is only one out of ten. . . . Here, however, we must never commit the error so often suggested, if not actually committed, of applying averages to individuals. It may be that the particular boy before us is actually the one out of ten who, on account of high moral qualities, persistence, tact, good habits, and other things not measured by psychological tests, may succeed in spite of the apparent odds against him.

(*c*) *The use of psychological-test results* in vocational counseling is not so satisfactory as it is in the case of educational counseling. On this point Dr. Link, whose experience in the applications of psychology to industry entitles his opinions to serious consideration, has this to say:[1]

Taking the world as it is, we find intelligence distributed among

[1] Link, Henry C. "Some Aspects of Vocational Guidance"; in *News-Bulletin of the Bureau of Vocational Information*, vol. 1, no. 21; pp. 6. (October, 1923.) New York, 2 West 43d Street. Quoted with the permission of the publishers, the Bureau of Vocational Information, New York.

occupations in a certain way. Though we may believe that this distribution is such that many individuals have too much intelligence for the occupations they are in, and *vice versa*, we cannot arbitrarily decide just what level of intelligence a given occupation should have. The relation between general intelligence and occupational success must first be scientifically demonstrated in accordance with the well-known psychological technique of finding correlations between two sets of facts. The discovery of this relation is of fundamental importance. Indeed, until the nature of this relation has been established for various occupations, a descriptive analysis of general intelligence levels as they now exist has little value. . . . The conclusion toward which psychologists seem to be moving is that vocational success, in so far as it depends upon intelligence at all, is due not so much to general intelligence as to a specific pattern of general intelligence. . . . In other words, general intelligence tests are a *quantitative* and not a *qualitative* measure of intelligence.

After suggesting that the most valuable service which the vocational counselor can render is in connection with the organization and presentation of reliable facts about occupations, Dr. Link, in the same article, goes on to say:

With the necessary information at hand, the uncertain individual and the vocational counselor can mutually work out a tentative choice of vocation. The educational and intelligence records of the individual will be factors in arriving at this choice, but in view of their uncertain significance will not be allowed to outweigh the many other factors which determine vocational success. A common-sense solution rather than a scientific verdict is all that, at this stage, we have a right to expect.

Limitations of objective devices should be understood. While, therefore, the vocational counselor will be expected to know about and make use of probability tables, personnel charts, educational tests, mental tests, and vocational-guidance tests as aids in gaining an intimate knowledge of the person advised, he must be made to appreciate the limitations of all such devices. The decision reached should

be the result of a coöperative effort on the part of counselor and pupil, and its tentative nature should be recognized.

Vocational training. The relation of vocational education to vocational guidance will be treated in Chapter XIV. It is mentioned here to indicate its importance in a complete guidance program. Actual contact with a vocation is the best possible means of finding out one's adaptability to it; but, since the public schools cannot provide "in-school" training for vocations, except to a very limited extent, and that only in the larger population centers, vocational contacts will of necessity be of the part-time variety.

Some of this part-time vocational work will, of course, be under the auspices of the schools in the form of extension education, some of it will be on a coöperative basis — a week in school and a week on the job; but much of it can be arranged for by the guidance officials in the form of vacation and after-school work. There is also considerable vocational-guidance value in the try-out subjects, now becoming characteristic of our junior high schools. The opportunity to spend five or six weeks in becoming familiar with the basic operations of a general occupational field not only gives a better understanding of the requirements of that type of occupation, but enables the pupil to test his aptitude for it. It may be safely said that the greater the extent of the vocational-training program of a city, the greater the need for systematic educational and vocational guidance to avoid great waste of effort and materials. Vocational guidance should precede vocational training, but such training should also be thought of as a most practical sort of vocational guidance.

Placement and follow-up. These two functions belong together, although the placement function is the one most apt to be emphasized to the neglect of the follow-up. Placement as mere "job-getting" is not an educational function.

Children, or their parents for them, are usually quite successful in finding jobs, once they decide to leave school. The school, as custodian of the child's welfare as well as of the general social welfare, has a duty to perform in seeing that such children as must of necessity go to work are not exploited as child laborers. It must also undertake to make sure that the initial employment yields vocational-guidance values, so that, when another placement becomes necessary or desirable, it may be made in the light of the lessons learned from the previous employments.

This means that placement and follow-up work must go hand in hand, not only on account of the additional data regarding the child's skills, aptitudes, and habits which are thus gathered, but because it is the only practical method of finding out whether the vocational counsel we have given the child is really sound. A specific effort at following up the pupils who have been advised by educational and vocational counselors is reported by the Vocational Service for Juniors, of New York City:[1]

This report describes the results of educational and vocational guidance given to 556 students of the graduating classes of six elementary schools in New York. This group was guided by the school counselors in the fall of 1920, and the follow-up of each student has been carried on for a year and a half.

The following results have been found: sixty-seven per cent were advised to go to high school, twenty-six per cent to trade school, eleven per cent to special schools, and five per cent to work. Forty per cent of the pupils already had places which were O.K.'d by the counselors.

Sixty per cent of all the pupils guided followed the counselor's advice (sixty-four per cent of the girls and fifty-seven per cent of the boys). The more students the counselor handled, the fewer pupils followed her advice. Of those who followed the counselor's advice, eighty per cent were successful, as compared with sixty-one

[1] Clark, Ruth S. "An Experiment in Educational Guidance"; in *National Vocational Guidance Magazine*, vol. 2, pp. 93. (1923.)

per cent who were successful in the group of those who did not follow the guidance.

There is need of a great many follow-up researches to establish the validity of our methods, both in educational and vocational counseling. Dr. Clark's lead in this field should be suggestive of similar studies.

The guidance clinic. The ordinary problems connected with the educational and vocational guidance of pupils will be handled by the agencies heretofore mentioned, classroom teachers, class advisers, part-time or full-time counselors, deans of boys and girls, and by the school principal. There will always be found, however, special-problem cases which cannot be adequately handled by any single adviser. To handle such cases a guidance clinic should be organized out of the regular teaching and supervisory personnel of the school, with the addition, where possible, of the school nurse, the school physician, and some representative of the Bureau of Research and Guidance. The advantage of the clinic is that it brings several minds to bear upon the problems presented. Different viewpoints are brought out, due to different angles of approach to the problem, and the solution is more apt to be a wise one than where one person alone attempts to handle the matter.

The problem cases worthy of consideration by the clinic should be selected by the school counselor, and all the objective data bearing on each case should be gathered and organized for presentation to the members of the clinic staff at its regular or called meetings. The pupils whose cases are being taken up should appear personally before the clinic, both in order that they may ask questions and answer them, and that each member of the clinic staff may have a chance to gain personal impressions. All appearance of an "inquisition" should be avoided. Informality and a spirit of sympathy and genuine interest in the pupils and their

problems should pervade the sittings of the clinic. The findings or suggestions of the clinic should be written out and made the basis for an individual conference between the pupil and the counselor. There should at all times be kept a close contact with the pupil's parents or guardians. A clinic for guidance properly handled may become not only a clearing-house for problem cases, but a means of unifying and coördinating all guidance activities.

IV. Extent of Vocational-Guidance Activities in High Schools

Edgerton and Herr's survey of guidance activities. Provisions for vocational and educational guidance in 379 junior high schools and 256 high schools were investigated by Edgerton and Herr, and reported in the *Twenty-Third Yearbook* of the National Society for the Study of Education, from which Table XII is taken:[1]

Table XII. Provisions for Educational and Vocational Guidance in 635 Secondary Schools

Guidance Activities Provided	Schools Using Services	
	Number	Per cent
1. Surveying local occupational opportunities and requirements to some extent	244	38.5
2. Studying results of these data and other reports of investigations	171	27.0
3. Testing pupils' abilities and interests in various ways	212	33.0
4. Assisting individual pupils in choosing vocational possibilities	351	61.0
5. Offering vocational training programs	489	77.0
6. Assisting all pupils in selecting educational possibilities	537	84.5
7. Offering vocational placement for part-time and full-time employment	440	68.0
8. Providing some form of employment supervision and follow-up work	195	31.0

[1] Edgerton, A. H., and Herr, L. A. "Present Status of Guidance Ac-

It will be seen that the features of a vocational-guidance program for secondary schools, which are most frequently claimed as being in operation in the reporting schools, are those relating to counseling with relation to vocational possibilities, offering vocational-training programs, educational counseling, and placement in part-time or full-time employments; and those least frequently mentioned have to do with surveys and studies of occupations, testing pupils' abilities and interests, and supervision and follow-up of those placed in gainful employments.

Vocational-guidance survey of California Committee of Fifteen. An abstract of the results of the survey of vocational-guidance activities of the California High Schools, as conducted by the Committee of Fifteen, during the academic year 1922–23, is given in Table XIII.[1]

Significance of survey data. The data presented in these two tables indicate that interest in vocational guidance in secondary schools is widespread — 61 per cent of the schools reporting in one survey, and 50.2 per cent of those reporting in the other, claiming to give vocational guidance in some form or other. The giving of vocational information is receiving attention, although there is much room for improvement in the methods employed. Intelligence tests, as a basis for vocational guidance, are being tried out sparingly, and for the most part in a negative way. Great caution in this phase of vocational guidance cannot be too strongly urged. Placement activities are claimed by a considerable percentage of schools in both surveys, although it is to be feared that high-school graduates receive more attention than "early leavers" or "drop-outs." Follow-up work,

tivities in Public Schools"; in *Twenty-Third Year Book*, National Society for the Study of Education, 1924, part II, p. 19.

[1] Proctor, W. M. Vocational Guidance Section of *Report of Committee of Fifteen, California High School Teachers' Association*, p. 115. San Francisco, 1923.

TABLE XIII. VOCATIONAL-GUIDANCE ACTIVITIES OF 187 CALIFORNIA HIGH SCHOOLS

NATURE OF THE ACTIVITY	SCHOOLS REPORTING ACTIVITY	
	Number	Per cent
1. Guidance in the choice of occupations	94	50.2 of 187
2. Counseling done by:		
(a) High school principal or teachers	60	32.0
(b) By specially appointed counselors	34	18.2
3. Giving vocational information:		
(a) By occasional lectures on vocations	96	51.3
(b) By organized life-career classes	54	29.7
4. Use intelligence tests and other means of discovering vocational abilities	36	19.3
5. Having placement bureaus or committees	41	21.0
6. Follow-up of those guided or placed	47	25.1

which might become the most fruitful phase of vocational guidance, if properly handled, both for the school and the pupil, seems at present to be receiving the least consideration.

These tables furnish sufficient evidence to show that interesting and fruitful experiments, in the different aspects of vocational guidance in the public schools, are being carried out. The initial stage, when talk about the theory and philosophy of guidance was the order of the day in conferences and institutes, has been passed. The workers in this field are now interested in the technique of guidance; in the validity of various kinds of tests; in the record blanks or forms that have been successfully employed; in methods of conducting life-career classes; in locating usable vocational information; in the making of occupational surveys; and in the art of conducting personal interviews. In short, what prospective counselors and personnel workers want to know

is how to make practical application, under actual classroom and school conditions, of the principles and methods which other workers in the same field have found to be worth while. This growing demand for usable information and workable plans in the vocational guidance of elementary and high-school pupils is, therefore, an indication that the vocational-guidance movement is making progress in the direction of genuine educational service and usefulness.

QUESTIONS AND PROBLEMS

1. Examine any metropolitan daily and make a list of the advertisements which offer help to individuals in planning their life-work. How many of these fall under the designation "Pseudo-guidance"?
2. Does the fact that 647,309 of the child laborers, ages ten to fifteen, inclusive, are engaged in agricultural pursuits, make any less effective the argument for vocational guidance in the elementary grades, based on Table X?
3. In Table XI no differentiation of the sexes is included. Examine vol. III of the 1920 *United States Census*, page 15, and see what the sex differences in school attendance, ages sixteen to nineteen, inclusive, are.
4. Make a list of the traditional elementary-school subjects, in an 8–4 plan of organization, which have had most to do with the tendency of over-age boys to leave school before completing the elementary school.
5. When a State raises its school-leaving age from thirteen or fourteen to sixteen years, what additional obligations does it assume? What happens if these obligations are not recognized and provisions made to meet them?
6. What further data would you want to have before giving vocational advice to a seventeen-year-old boy in the eighth grade, whose father's occupation is that of unskilled laborer, whose school work is below average, but passing, and who does not plan to go to high school?
7. A girl, nineteen years of age, chronologically, twelve years, six months mental age, in first year of high school, wants to be a stenographer. How would you proceed in giving this girl vocational advice?
8. A boy, I.Q. 112, father lawyer, school work just average, except for shop work which is superior, wants to become skilled mechanic. Father wants him to become lawyer or doctor. What procedure would you adopt in giving vocational advice?
9. See article by Kitson on "Vocational Guidance and the Theory of Probability," in bibliography at end of chapter, and apply that theory

to the high-school pupils in any high school whose ambitions lie in the field of professional occupations.

10. Ask the principal of any high school for a list of the boys and girls who left his high school during the preceding school year, and make a study of the reasons assigned for leaving in each case.
11. What is your reaction to the theory of vocational guidance which assumes ability on the part of the counselor to put square pegs in square holes, and round pegs in round holes, vocationally?

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CHAPTER XIII

GUIDANCE IN ACQUIRING VOCATIONAL INFORMATION

I. Vocational Information in the Elementary Schools

Integrating value of vocational information. Any school subject or activity which results in a more intimate knowledge of the world, and how the people on it live, move, and have their being, is worth while in and of itself. Since seventy-eight per cent of the male population and twenty-one per cent of the female population, over ten years of age, in this country are engaged in gainful occupations, a knowledge of the kinds of work in which these workers engage is an essential part of a truly liberal education. Aside from the value which such a knowledge of the world's workers and their work may have in providing a background for the selection of one's own life-career, there is a distinct advantage on the social side. A knowledge of how the "other half" lives is an important factor in breaking down caste and social barriers and promoting a true spirit of democracy.

Sharing the experiences of others is the best possible way to a better understanding of their modes of thought and ways of life. Hence, it is desirable, in addition to giving vocational information, to provide opportunities for first-hand participation in a number of different occupations. This can be accomplished through vacation and after-school employments, as well as in regularly organized, in-school vocational courses. No amount of book-study will suffice to give the insight into an occupation which can be gained by a few months' participation in that occupation, even though that participation should be in a very minor capacity.

Guidance value of vocational information. The guidance value of vocational information is worth further emphasis at this point. The best way to motivate any learning process is to bring the child to want to learn the task or process to be mastered. The worst method to employ is that of dictation or compulsion. It is almost as bad, pedagogically, to permit a state of indifference to exist without attempting to do something about it. Vocational information, skillfully assembled and imparted, should be a means of eliminating indifference and also of making compulsion or dictation entirely unnecessary. The search for a life-career objective may become the occasion for planning all kinds of interesting excursions, and for coming in contact with many varieties of people and industries. A vocational objective, selected after ample opportunity for acquiring worth-while vocational information, and combined with a variety of first-hand occupational experiences, will be much more apt to prove satisfactory than such an objective arbitrarily selected by parent or guardian, or discovered by the process of "job shifting."

The value of vocational information, as an aid in vocational selection, will depend upon the manner in which that information is gathered, organized, and applied. The formulation and following of a definite plan is essential to success. The development of such a plan for the elementary grades does not necessarily involve the introduction of a new subject into the program of studies. It does involve, however, specific attention to the vocational content of existing subjects and the introduction of pertinent supplementary material. This point was well brought out by the Commission on the Reorganization of Secondary Education:[1]

> The ideals of vocational guidance, however, cannot be satisfactorily attained without remodeling the instruction of the first six

[1] *Vocational Guidance in the Secondary schools*, United States Bureau of Educational Bulletin, no. 17 (1918), p. 11.

years. Elementary education should be remodeled so as to give some knowledge of occupations and afford opportunity for a wide variety of experience or activities having vocational significance.

The suggested remodeling can be accomplished, so far as vocational information is concerned, by putting in the hands of elementary teachers prepared outlines or syllabi, which indicate the occupations to be taken up in each grade, the method of treatment, and the sources of worth-while material.

When should occupational information first be given? The answer to this question is that occupational information should be given just as soon as a child begins to take an interest in what older persons about him are doing. Such an interest manifests itself so early that there is ample justification for beginning to give such information in the kindergarten. The most recent book in this field presents this view.[1]

> If, instead of waiting until he had reached the fourth or fifth grade, the courses of study were so planned that when he first entered school, even in the kindergarten, his knowledge of common occupations could be increased, his interest in occupational life would be intensified. As he advanced from grade to grade he would learn more of occupations and the training and qualifications required for them. If it should be necessary for him to leave school at an early age, or when in a lower grade, he would leave understanding in some measure at least the limitations of his life.

It may be objected that the average teacher knows so little concerning even the most common occupations that this information would be poorly given. This is a real difficulty, but not an insurmountable one. For the teacher's own good she should be required to learn some of the fundamental facts about the ways in which men and women earn their livelihood. Again, the necessity for so clothing these

[1] McCracken, T. C., and Lamb, H. E. *Occupational Information in the Elementary School*, p. 39. Houghton Mifflin Company, Boston, 1923.

facts with vitality through dramatization, pictorial presentation, and actual visitation of places of industrial activity will materially add to the teacher's own cultural life, as well as to her teaching efficiency. Every teacher, from kindergarten to college, needs such contacts to keep from becoming narrow, bookish, and provincial.

Occupations to be stressed in the different elementary grades. The following is a brief outline of the types of work which may be done in each grade of the elementary school:

(*a*) *Kindergarten:* The occupations to be studied in the kindergarten should be those with which the children are most familiar and which lend themselves best to dramatization, story-telling, picture presentation, and illustration by hand-work with the kindergarten materials. Such occupations as the blacksmith, the farmer, the dairyman, the grocer, the home-maker, and the postman can be studied, and projects [1] may be developed that will afford an opportunity for teaching the essential activities involved in each.

(*b*) *The first grade.* In the first grade the same occupations as those mentioned in the discussion of the kindergarten should be studied, with the addition of the carpenter, the gardener, the soldier, the sailor, and the policeman. The same methods will prevail, with the exception that as soon as the children learn to read they can be given an opportunity to find out much about the occupations studied in their supplementary readers. Pictorial presentation, projects, and excursions will add to the interest.

(*c*) *The second grade.* In this grade there will be a continuation of interest in the occupations already suggested, possibly adding the baker and the dressmaker to the list.

[1] McCracken, T. C., and Lamb, H. E. *Op. cit.*, chaps. VI to XII, inclusive, pp. 87–195. (Description of methods of imparting vocational information in the elementary grades. Bibliographies especially well chosen.)

The making of occupational booklets, illustrated with pictures cut from magazines, will add interest to the work. Paper-cutting, clay modeling, and project work will also find a place. Children should be encouraged to discuss the occupations studied, and to bring in bits of information which they have gathered themselves.

(*d*) *The third grade.* In this grade it is possible to begin the grouping of occupations under their functional headings, such as: food, shelter, clothing, public service, etc. Occupational bookmaking can be continued, as also the discussions based on projects, excursions, and individually gleaned facts about the occupations studied.

(*e*) *Fourth grade.* The relative importance of the different occupations can be stressed in the fourth grade. Attention can well be devoted entirely to the food-producing occupations, covering the production, transportation, preparation for consumption, and cooking and serving of food products. Children in this grade are old enough to begin to realize the social interdependence of those engaged in one occupation upon those engaged in other occupations. This dependence is especially easy to bring out in connection with the food-producing occupations.

(*f*) *The fifth grade.* In this grade the occupations having to do with the making of clothing can be emphasized, such as the textile industries, the boot and shoe industries, hats, garment-making, etc., as well as the buying and selling phases of the clothing industry. Biographical studies of the lives of famous merchants and manufacturers of clothing can be introduced to good advantage. In connection with these occupations also there will be opportunity for discussion of the desirability of various occupations. Particularly it is desirable, since the worst phases of child labor are associated with the textile and garment industries, to teach children how to avoid occupations in which they are most apt to be exploited.

(*g*) *The sixth grade.* The building trades and occupations which have to do with housing, as well as some of the more fundamental industrial occupations which have not already received treatment, should receive attention in the sixth grade. In this grade also there should be emphasis upon qualifications of workers in the various occupations, as well as upon the numbers engaged, the character of the work, the opportunities for promotion, wages, etc. Simple exercises in methods of applying for positions can be given, and the value of neatness, promptness, loyalty, hard work, good nature, and many other habits and attitudes, important in the securing and holding of desirable positions, can be emphasized with sixth-grade children.

How occupational information may best be imparted in elementary grades. Means for imparting such information are:

(*a*) *In connection with the regular school subjects.* In the first three grades, reading and hand-work projects afford the best means of "getting over" desirable vocational information. In the fourth, fifth, and sixth grades, reading and hand-work will continue to be utilized, but geography, arithmetic, hygiene, and history, as well as the elementary phases of manual and household arts, may be brought into play to good advantage also. Geography, which all too often is taught in a perfunctory, dry-as-dust manner, can be made to live by the introduction of more vital material relating to the products, industries, and occupations of the people who live in the various lands or parts of the country under investigation. Occupational hygiene, as well as the personal hygiene essential in the holding of positions, can be made a part of the course in physiology and hygiene. Fewer details concerning bones, muscles, ligaments, and tendons, and a closer application of hygienic principles to the home and occupational life of the children, will help to vitalize the teaching of

hygiene. Many opportunities for bringing out the bearing of arithmetic upon the successful participation in the building trades, store-keeping, salesmanship, and other occupations will present themselves to the resourceful teacher. In all the grades language study may be motivated by having children make written reports of excursions to plants, farms, stores, etc.; by the making of occupational booklets; and by the writing of applications for positions or writing essays on various occupations.

(*b*) *By carefully selected reading.* What the teacher is able to accomplish in connection with the regular school subjects is very important, but it is only a fraction of the total amount of vocational information that the average child will get from his own reading, if that reading is properly stimulated and supervised. The number of school library and public library books which the average child reads would probably amaze any one not familiar with the possibilities along this line. When children become interested in a subject, they are capable of going far beyond the range of what can be given in any classroom period. Much of what children now read is very poor mental or spiritual pabulum. Without taking all the joy out of life, or seriously interfering with their natural love of stories of adventure, a tactful teacher or librarian can interest them in fascinating books which give the essential facts about the occupations being discussed in the classroom. In this way, a far greater spread of interest, as well as a closer attention to individual needs, may be attained. A little well-directed effort will secure the coöperation of the public library with the school library in meeting this demand for good books which deal with occupations in an interesting way, and yet contain information which is definite and reliable.

(*c*) *By projects.* Store-keeping, home-making, house-building, farming, letter-carrying, and numerous other oc-

cupations can be illustrated with projects in which all the children in a room participate, and, while the project is under way, reading, arithmetic, manual training, and other subjects can be motivated in the preparation. The greater the responsibility put upon the children themselves to develop, criticize, and perfect the details of the project the better. These projects will naturally be graded to the capacity of the children who are to carry them through, and should increase in definiteness and accuracy of portrayal until, in the sixth grade, there should be an approximation of the skills essential to "carrying on" in the occupation under investigation.

(*d*) *By excursions* to industrial plants, farms, orchards, dairies, stores, and the like. These are difficult to arrange and carry out successfully, because a crowd of children does not add to the efficiency of a shop, not to mention the danger to them as well as to the machinery through carelessness or mischief. But many successful excursions have been carried out by teachers in all grades of the elementary system, and what one teacher can do some other teacher can do also if she is willing to go to the trouble of making careful preparation for the event. No such excursion should be undertaken without a considerable amount of time spent, prior to the actual visit, in preparing the children for what they are to be on the lookout. This means that the teacher will do well to make a visit to the plant herself before undertaking to pilot her pupils on such an enterprise. The follow-up of the excursion in the way of reports and discussions should be carefully done in order to realize the greatest benefit from the experience.

(*e*) *Occupational films.*[1] On account of the difficulty of securing admission to the most important industrial plants,

[1] McCracken, T. C., and Lamb, H. E. *Op. cit.* for list of vocational films.

even in the case of children living in the immediate vicinity, an increasingly popular method of bringing vocational information to the children is through the motion-picture film. The visual education bureaus of our State departments of education and our State universities, as well as private firms, are devoting careful attention to this field. The advantage of the educational film is that the most important features can be stressed and the pictures can be run a number of times, accompanied by explanatory talks.[1] Also a much wider range of occupations can be graphically illustrated at a much smaller expenditure of time and effort than is involved in visits or excursions. One method of presentation does not necessarily need to preclude the other, but the film, because it can be transported by express or parcel post to every nook and corner of the land, means that children in Maine can learn of the great cattle ranches and orange groves of California, while the children in Montana can see in vivid detail the packing industry of Chicago, or the automobile industry of Detroit. A much more accurate idea of the actual details of an occupation can be given in an hour with the moving picture than could be had in weeks of classroom description and discussion, or even in visits to the plant itself.

Occupations upon which most stress should be put in elementary grades. In discussing the occupations to be taken up in grades one to six, inclusive, no mention was made of professional occupations. The reason for this will be apparent if reference is had to Table X, page 245, where the numbers of child workers engaged in the different occupational divisions are given. These numbers, reduced to percentages, are as follows:

[1] Link, H. C. *Education and Industry*, chap. II, on "Industrial Motion Pictures," pp. 22–36. The Macmillan Company, New York, 1923.

Occupations	Per cent
1. Agricultural	61.1
2. Manufacturing and mechanical	17.4
3. Clerical	7.5
4. Trade and commercial	6.0
5. Domestic service	5.1
6. Transportation	1.8
7. Extraction of minerals	0.7
8. Professional	0.3
9. Public service	0.1

From the above percentages it is apparent that youths between the ages of ten and fifteen years, inclusive, are engaged for the most part in agricultural, manufacturing and mechanical, clerical, trade and commercial, and domestic-service occupations. The three tenths per cent engaged in professional service are not practicing professions, but engaged as office boys and girls and helpers about the offices of professional people. For purposes of vocational guidance, attention to professional and public-service occupations may safely be left to the junior and senior high schools.

II. Vocational Information in the Secondary Schools

The occupational survey. As the time approaches when larger and larger numbers of boys and girls will be leaving the schools to enter gainful occupations, the need for accurate vocational information increases. The best means of securing this information, so far as local conditions are concerned, is through the making of an occupational survey.[1] Occupational surveys have been attempted in certain instances under the management of high-school students, without proper direction or supervision. The results in

[1] Edgerton, A. H., and Cunliffe, R. B. *Opportunities and Requirements in Local Occupations,* a series of bulletins described in the *Twenty-Third Yearbook,* National Society for the Study of Education, 1924, part II, pp. 120–28.

such cases have not been satisfactory. An occupational survey, to be a success, must be carefully organized and directed. Those who are to act as educational and vocational counselors in the high school should have charge of the work. High-school students may be used as assistants, but the actual contacts with those from whom the information is to be secured should be made by the adult workers. Not only will the results secured be more accurate, but the counselors will themselves gain a much better insight into the conditions in their local field and be in a better position to give sound advice to their pupils. Commercial, Rotary, and Kiwanis Clubs will readily coöperate, either in a survey of occupations or in carrying out a program of talks on occupations by members of their organizations.

It is important to have a definite outline of procedure in gathering vocational information, so that all significant features of the occupations studied may be brought out and recorded. The plan, or outline, used in the Detroit public schools will be suggestive, as indicating the items which should be included in the study of an occupation for use in a life-career class, or in making an occupational survey in a city:[1]

TABLE XIV. TYPES OF INFORMATION USED AS A BASIS FOR OCCUPATIONAL COUNSELING IN THE DETROIT PUBLIC SCHOOLS

1. Nature of work.
2. Main advantages and disadvantages:
   - (*a*) Factors that cause physical or nervous strain.
   - (*b*) Factors that interest and develop the worker.
   - (*c*) Factors that restrict mental growth.
   - (*d*) Factors that are in other respects important as affecting the welfare of the workers (i.e., liability to accident, occupational diseases).

[1] Edgerton, A. H., and Cunliffe, R. B. *Op. cit.*, p. 121. Quoted with permission of the publishers, the National Society for the Study of Education, G. M. Whipple, secretary.

3. Qualifications and training needed:
   (*a*) General education.
   (*b*) Necessary technical education.
   (*c*) Manipulative skill.
   (*d*) Extent to which occupation can be learned on the job.
   (*e*) Line of promotion.
4. Possibilities in requirements of occupations:
   (*a*) Provisions made for systematic instruction of workers.
   (*b*) Necessary or technical knowledge.
   (*c*) Manipulative skill.
   (*d*) Extent to which occupation can be learned "on job."
   (*e*) Line of promotion.
5. Remuneration:
   (*a*) Wages.
   (*b*) Special.
6. Hours of work.
7. Seasonal demands of work:
   (*a*) Busy season.
   (*b*) Slack season.
   (*c*) Fluctuation in employment.
8. Are workers organized?
9. Entrance age.
10. Time required to learn duties.
11. Is supply of labor adequate to meet demand?
12. Is demand for labor increasing or decreasing?
13. What is the source of supply?
14. Common deficiencies of workers.

The results of occupational surveys conducted by the counselors, under the direction of the Supervisor of Vocational Information, Curricula, and Guidance in Detroit, has been the publication of a series of bulletins on *Opportunities and Requirements in Local Occupations*, in three parts. Part One covers department stores, chain-grocery stores, commercial art, drafting-rooms, tool-making, sheet-metal trades, etc.; Part Two includes carpentry trades, printing and publishing, nursing, social service, stationary engineering, structural engineering, etc.; Part Three includes clerical positions,

telephone operating, wholesale drug industries, auto mechanics, photography, dentistry, etc. If publication of bulletins containing the vocational information gathered in the survey of local occupations is not feasible, the material should at least be carefully typed and placed in a filing cabinet in labeled folders, for the general use of the counselors and high-school pupils.

The vocational information alcove in the high-school library. Provision must be made for the assembling of books and pamphlets on vocations in an accessible place, preferably the high-school library. Much of this material can be assembled at small cost from Government Bureaus such as the Bureau of Education, the Bureau of Child Welfare of the Department of Labor, the Bureau of Standards, the Department of Commerce, and the Federal Board for Vocational Education. Different industries, of national scope, publish descriptive bulletins which may be had on application. Then there are many available books on single occupations, as well as groups of occupations, which should be added to the collection in the proposed alcove.[1] It should be the duty of the counselor, in coöperation with the school librarian,[2] to keep this material up to date, and also to see that attractive notices of the existence of the alcove and what it contains are posted on the bulletin boards and in the library.[3]

Vocational-information possibilities of high-school sub-

[1] For suggestions as to appropriate books for such an alcove in the high-school library, see Allen, F. J., *A Guide to the Study of Occupations*, Harvard University Press, 1921; and chap. x, pp. 191–98, of the *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part II.

[2] Hall, Mary E. "The Librarian's Part in Vocational Guidance"; being chap. IX in *Vocational and Moral Guidance*, by Jesse B. Davis, pp. 273 ff.; also same author, *Vocational Guidance through the Library*, American Library Association Publications Board, Chicago, 1914.

[3] Rynearson, Edward. "Essentials of a High-School Vocational-Guidance Program"; in *School and Society* vol. 17, pp. 16 ff.

jects. The coöperation of all high-school teachers should be secured in the development of the vocational-information possibilities of their subjects. Most teachers like to believe that their subjects have some vocational-economic values, and for that reason they are generally willing to take a little time to analyze out these values and organize the results for presentation to their classes. If they receive help from the counselors in doing this, their work is much more apt to be productive of good results.

Among the secondary subjects wherein the giving of vocational information can be easily coördinated with the regular class exercises, the subject of English occupies a leading place. Davis [1] describes how the vocational and moral-guidance program of the Central High School, at Grand Rapids, Michigan, was carried out, primarily through coördination with high-school English. In the Pittsburgh high schools, also, English is employed as a medium through which much valuable vocational information is imparted.[2]

Other subjects, particularly history, civics, industrial and commercial geography, general science, and the manual and household arts, can easily be used as media through which vocational information may be effectively given. If teachers of high-school subjects do not see the vocational relations of their subjects, it is in order for the counselors to educate them up to such possibilities. In Seattle,[3] Washington, a questionnaire was sent out to business men asking them to indicate the high-school subjects which had been of greatest help to them in their vocations. A report entitled *The*

[1] Davis, Jesse B. *Vocational and Moral Guidance*, chaps. VI to X, inclusive, and Contributions 2 to 6, inclusive. Ginn & Co., Boston, 1914.

[2] Guidance through English courses, described in *Vocational Guidance Bulletin*, pp. 50–57. Pittsburgh Public Schools, 1922.

[3] Fleming, S. E. "Vocational Guidance in Seattle"; *News-Bulletin* of the Bureau of Vocational Information, New York, vol. 2 (February 1, 1924), pp. 19, 22, and 23.

Vocational Relation of the Various High-School Subjects was compiled from the replies received, and a copy sent to each high-school teacher, with salutary results.

Lectures and talks on vocations. Perhaps the most prevalent practice, because it appears to be the line of least resistance, is to have assembly talks on occupations by representatives of the different occupations. To secure satisfactory results from this method of imparting vocational information, however, it is necessary to have a conference with the speaker, and agree in advance upon the features of the occupation discussed which you desire to have brought out. The average speaker, left to his own devices, will more often than not touch either upon the obvious features of an occupation, or spend all his time on nonessential elements. If the local Commercial Club can be interested to secure a series of vocational films, and have representatives of their organization lecture or give the oral explanations in high-school assemblies, very helpful service can be given. In some cities, at the instance of the vocational counselors, occasional talks on vocations are included in the regular radio [1] broadcasting programs.

Formation of Occupations Clubs, Junior Chambers of Commerce, etc. In certain high schools, all the boys and girls interested in a particular occupation are organized into a club for the study of that occupation as an out-of-school activity. These clubs are assisted in their efforts to learn as much as possible about the occupation which has been the occasion of their being grouped together by the counselors. If it is a manufacturing or industrial occupation, excursions are arranged and visits are made to the local plants. The Club arranges programs where reports from their own members are made, or where outside speakers, familiar with the

[1] Rynearson, Edward. "Vocational Information by Radio"; in *School and Society*, vol. 15, pp. 582–83.

occupation, are invited to speak. If it is a professional occupation, not only are representative speakers invited to address the club, but arrangements are made to have individual members of the club meet representatives of the profession in their own offices for brief personal interviews. Where the program is carefully supervised, business and professional men have been found very willing to give time to this form of personal guidance.

Another form of extra-curricular activity, designed to yield valuable results in worth-while vocational information, is the Junior Commercial Club or Chamber of Commerce. The Junior Association of Commerce of Grand Rapids, Michigan, is thus described by Davis:[1]

> A junior association was formed, and it has had a continuous and successful growth since its beginning. At its meetings, held in the auditorium of the senior association on alternate Saturday mornings, a brief vocational address is given by the best speaker to be obtained locally in that occupation. The boys take part in a lively discussion, asking pertinent questions about the desirability of the vocation, the qualities necessary for success, the best method of preparing for and entering the vocation, and many other things that only earnest seekers after light will think of. This hour is usually followed by a trip to the factory or place of business represented by the speaker. By this means many of the boys have found the occupation that has most appealed to them, and have obtained positions during vacations or on Saturdays to try themselves out in actual employment.

Clubs having similar aims, but organized to meet local conditions, could be developed. There are peculiar advantages in having the effort sponsored by an organization of business men. The interest of the boys is greatly enhanced by the feeling that they are a part of a live enterprise. They have the benefit of new viewpoints and first-hand contact with men who are doing things. The business men, on

[1] Davis, Jesse B. *Vocational and Moral Guidance, op. cit.*, p. 126.

their part, will be apt to take a new interest in the schools because they are permitted to share in an important educational enterprise. It is common practice for Rotary or Kiwanis Clubs to have Vocational Guidance Committees. Counselors should make use of such committees.

Life-career or occupations classes. Any or all of the above-described methods of imparting vocational information should be supplemented, wherever possible, with organized classes in occupations, frequently called "life-career" classes. Brewer gives sound advice as to the character and methods of conducting a life-career class: [1]

> The class in vocations should be as serious in its subject-matter, methods, and requirements as any other class, and nothing but the best should be used as text and reference books.
>
> The textbook should be supplied with exercises and suggestive questions, and should provide for the study of printed matter, visits, interviews, original investigations, reports, discussions, and debates. It should candidly state the difficulties and problems in the occupations, and should touch on the social and economic questions necessary to be understood. It should be free from sentimentalism and other objectionable subject-matter. Three or four good books to cover the commercial, industrial, and professional occupations should be used as supplementary texts, and the books selected should have been written with the modern vocational guidance point of view in mind.
>
> In the high school age the pupils will be able to profit by detailed analyses of the occupations, and by analyses and examinations of their own characteristics as measured by concrete requirements.

Life-career classes will ordinarily be taught by the full-time or part-time counselor. Sometimes they are called "occupational civics" classes, and are taught by the regular civics teacher. There is no uniformity of practice as to the

[1] Brewer, John M. *The Vocational Guidance Movement*, pp. 269, 270. Quoted with permission of the publishers, The Macmillan Company, New York, 1918. See also article by same author, "A Class in Occupations in Newton"; in *School and Society*, vol. 13, pp. 698 ff.

year in high school when such classes shall be given. There are indications that the ninth grade, or first year of high school, is favored as the best time for the course, since forty out of the fifty-four California high schools having life-career classes held them during the ninth year.

An outline to be followed in the conduct of a life-career class is suggested by Cunliffe, of the Central High School, Detroit:[1]

I. *The problem of the worker:*
   (*a*) Going to school.
   (*b*) Your opportunity.
   (*c*) Finding your place.
   (*d*) How to find out about an occupation.
   (*e*) Your studies.
   (*f*) Your first job.
   (*g*) Success.
   (*h*) The greater world.
   (*i*) Wealth, wages, and thrift.
   (*j*) Books can help you.

II. *Studies of vocations:*
   (*a*) Preliminary report; questionnaire.
   (*b*) Final report; theme to be presented to the class.

This outline is followed in the publication of an attractive little bulletin, entitled *Plan Your Progress*, which is put into the hands of all the members of the occupations classes in the Central High School. *A Guide to the Study of Occupations*, by Frederick J. Allen, and published by the Harvard University Press, should be in the hands of every teacher who handles a class in occupations.

Extent to which high schools are carrying out suggested plans for imparting vocational information. Of the 635 large

[1] Edgerton, A. H., and Cunliffe, R. B. "A Public School Program for Collecting and Using Vocational Information"; in *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part II, pp. 136, 137.

high schools reporting to Edgerton and Herr (Table XII, p. 261), 38 per cent had undertaken surveys of local occupations, and 27 per cent were studying the results of the data gathered and following up the surveys by individual investigations. Of the 187 high schools reporting to the Committee of Fifteen of the California High School Teachers' Association (Table XIII, p. 263), 51 per cent were imparting vocational information by means of occasional lectures on vocations, and 30 per cent had organized life-career classes. Reference to the printed report [1] will show that the life-career classes are taught most frequently by the school counselors, with school principals and civics teachers coming second and third respectively. The general practice with reference to occasional lectures on vocational subjects is to have outside speakers appear before a high-school assembly. In this connection outside speakers are mentioned by the California high-school principals 56 times, principals themselves 24 times, and vocational-subject teachers 16 times.

Wider spread of vocational choices should result from effective imparting of vocational information. Surveys of the vocational ambitions of high-school pupils almost invariably bring out the fact that such ambitions tend to cluster around a few occupations. The occupational choices generally fall within the professional, commercial, or clerical groups. Cunliffe [2] found that 64 per cent of the eleventh- and twelfth-year boys of the Central High School, Detroit, covered only five occupations in their choices; that 76 per cent of the girls covered likewise but five occupations; and that 83 per cent of both girls and boys mentioned only ten occupations among their life-career choices. In an industrial city, the home town of the automobile, 75 per cent

[1] Proctor, W. M. Section on Guidance, *Report of Committee of Fifteen, California High School Teachers' Association*, p. 115. San Francisco, 1923.
[2] Edgerton, A. H., and Cunliffe, R. B. *Op. cit.*, p. 137.

of the 581 boys and girls planned to enter professional occupations.

The writer [1] found that 91 per cent of the 930 high school pupils reporting their vocational choices to him, in 1917, desired to enter either professional, commercial, or clerical occupations; and only 9 per cent expressed any preference for agricultural, mechanical, or industrial employments.

Wherever there has been a follow-up of pupils into their after-school life it has been shown that their actual occupations cover a much wider range than their vocational ambitions while in high school would have indicated. A fifth-year check on the 930 pupils mentioned in the preceding paragraph [2] brought out the fact that, of the 272 who dropped out of high school to go to work, only 44 per cent were found in commercial or clerical positions. The 56 per cent found in other occupations than commercial or clerical were divided as follows: 18 per cent in skilled mechanical occupations; 30 per cent in semi-skilled, and 8 per cent in unskilled occupations.

Thorndike,[3] making a study of the graduates and non-graduates of the Northeast High School of Philadelphia, found that only 41 per cent of the non-graduates were engaged in professional or commercial occupations. The occupations of the remaining 59 per cent were either unknown or of a miscellaneous character.

All the studies above cited agree in their findings with reference to the non-graduating group of high-school pupils; that is, that less than fifty per cent of them will find their way into the professional and business occupations. Since

[1] Proctor, W. M. *Psychological Tests and Guidance of High-School Pupils*, p. 71. Public School Publishing Company, Bloomington, Illinois, 1923.

[2] *Op. cit.*, pp. 78–88.

[3] Thorndike, E. L., and Symonds, P. M. "Occupations of High School Graduates and Non-graduates"; in *School Review*, vol. 30, pp. 450 ff.

the non-graduates constitute more than one half of the total high-school population, it becomes very evident that many of them are either thinking about or actually taking high-school courses in training for occupations which they will never enter. A very considerable amount of this wasted energy can be traced to lack of proper information and guidance. Better methods of imparting vocational information will therefore tend to result not only in a wiser selection of vocational objectives, but in a much wider spread in the number and variety of vocations selected.

QUESTIONS AND PROBLEMS

1. What are the conditions, prevailing to-day, which make it practically impossible for young people to get reliable vocational information unaided? How do these conditions differ from fifty years ago?
2. Take a high-school senior class and find out how the boys spent the preceding vacation. Do you find any correlation between their summer vacation work and their vocational ambitions?
3. A six-year-old, after his first day of school, took his books and told the teacher he was not coming back again. The teacher asked him: "What is the matter?" He replied: "I am going to be a policeman, and nobody has said a word about policemen here all day." How would you have treated the boy's reply?
4. Outline a project for developing a knowledge of the carpenter's or baker's work for third-grade children.
5. What cautions should be observed in discussing with children the desirability or undesirability of certain occupations?
6. Work out procedure which you would follow in developing the vocational-information content of the subject of geography?
7. What are the advantages and disadvantages of the occupational moving picture film in imparting vocational information?
8. Make a report on the Vocational Survey Section of one of the following school surveys: *The Minneapolis Survey; The Cleveland Survey; The Gary, Indiana, Survey;* or *The Denver Survey.*
9. Submit a list of books, suitable to put into the hands of children as texts, for classes in "Occupations." Indicate principles followed in making selection.
10. Prepare an outline for the use of a local lawyer in giving a talk on the legal profession before a high-school assembly.
11. Would you be willing to ask certain business and professional men

to give time for personal interviews with boys or girls interested in their vocations?

12. Should the life-career class come during the first, second, third, or fourth year of high school? Give reasons for answer.
13. Before making a detailed study of a certain occupation, 80 per cent of the girls in the class had thought of that occupation as a possible life-career. After studying about it only 35 per cent still retained their preference. Was this an indication of success or failure in the teaching of the life-career class?

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For complete list of vocational information books, pamphlets and source materials, see *Twenty-Third Yearbook*, National Society for the Study of Education, part II, pp. 194–98, 1924.

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CHAPTER XIV

GUIDANCE AND PLACEMENT IN RELATION TO VOCATIONAL EDUCATION

I. Public Vocational Education in a Democracy

What it is. A recent *Report*[1] defines vocational education as follows:

> Vocational education is any form of education, whether given in a school or elsewhere, the purpose of which is to fit an individual to pursue effectively a recognized profitable employment (of social value), whether pursued for wages or otherwise.

Vocational education is often discussed as though it were something apart from general education and had no place in a scheme of public instruction. This false assumption has arisen through the classification of vocations as exclusively adult activities, all thought concerning which should be postponed until one's education or schooling is completed. If the method of activity analysis, heretofore employed in discussing curriculum construction and organization, is valid, it follows that the public schools should make provision for the gradual unfolding and maturing of the vocational interest. This vocational interest is manifested at an early age in the manipulative instinct, or, as it is sometimes called, the instinct of workmanship. Just as in the case of all other life-activities, the vocational activity should be provided for in each of the administrative units of the public school system — kindergarten, elementary, secondary, and higher education.

[1] *Report of National Educational Association Committee on Vocational Education*, United States Bureau of Education, Bulletin (1916) no. 21, p. 33.

Each of the fundamental life-activities has a body of knowledge and a set of skills and attitudes peculiar to itself, and to that extent requires specific training for its complete mastery. The processes by which we acquire the knowledge, skills, and attitudes essential to effective participation in these activities are educational processes. It is therefore possible, and indeed customary, to speak of health education, civic education, religious education, household-arts education, or vocational education. We do not mean, however, by applying these different titles that a given individual, because he may happen to be pursuing studies along all of these lines, is receiving seven or eight different educations. We simply recognize the fact that his education is being pursued along the line of a number of different activities, all of which are necessary if his training is to result in the ability to live a well-balanced life.

There is, therefore, no warrant whatever for placing general education and vocational education in opposition to each other, seeing that vocation is simply one — all be it a very important one — of the life-activities for which provision must be made in any system of education which pretends to give preparation for complete living. Nor is there any warrant for assuming that all thought of vocation can be postponed until late in the adolescent period, and therefore does not necessarily concern the elementary or secondary school. Since the Census of 1920 tells us that fifty per cent of American youth leave school by the sixteenth year, and that eighty-six per cent are out of the schools by the nineteenth year,[1] both vocational guidance and vocational education are necessary in every unit of the school system.

What vocational education in the public schools seeks

[1] See Chapter XII, Tables X and XI, pp. 245 and 247, for United States Census figures on out-of-school, or employed children, ten to fifteen, and sixteen to nineteen years of age, inclusive.

to do. Since there are several thousand different and distinct occupational tasks or processes, it would be both impractical and undesirable for any school system to offer specific training in such a variety of highly specialized occupations. But "it is possible to offer instruction in selected and organized units of typical industrial (*and commercial*) pursuits, which will result in some degree of understanding and appreciation and give limited insight into the relative conditions, opportunities, and requirements in a number of important occupations, without danger of overemphasizing the localized pursuits and the limitations in certain specialized callings." [1] It should also be recognized by those in charge of public vocational education that complete training — training which enables a worker to function perfectly in the task for which trained — is practically impossible in any school. That either concomitantly with the school training — through part-time coöperative training or continuation training — or subsequent to the school training there must be a period of "finishing" training on the job in the occupation or industry itself.

It is possible for public education to make provision for training:

(1) In a few occupations, with a fair degree of thoroughness, imparting necessary skills, information, and attitudes, the training later to be completed on the job.

(2) In occupational intelligence for a considerably larger variety of occupations — imparting vocational information; and providing opportunity for participation in basic operations; for discovery of interests and aptitudes, and for experimentation along the lines of these attitudes and interests.

(3) In related school work, such as drawing, shop mathematics, industrial history, technical English, etc.

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[1] Edgerton, A. H. "Tendencies in Part-Time and Industrial Education" in *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part II, p. 207.

(4) In basic social and civic studies, such as occupational economics, labor problems, occupational hygiene, occupational ethics, and the continuation of liberal and avocational studies and activities.

The statement is made that it is possible for a public school system to make provision for the types of training just outlined, because in every State in the Union such provision is already being made, either on the initiative of the local district, the State, or of both in coöperation with the United States Government under the Smith-Hughes Law for the promotion of vocational education.

Agencies through which the aims of vocational education are accomplished. The more important of these agencies are:

(*a*) *Try-out, or self-discovery courses*, in junior high schools or intermediate schools. Such courses are designed, first, to contribute to general experience, and vocational intelligence; second, to render assistance in occupational selection without encouraging early school-leaving; and third, to give preliminary vocational training for those who must leave school early.

(*b*) *All-day trade schools.* Designed for those who expect to enter specific occupations, and who are able to devote their entire time to the training for from six months to four years. In these schools the effort is made to teach the actual operations as well as the underlying theory of a given trade or pursuit. Usually not open to children under fourteen years of age.

(*c*) *Part-time, coöperative schools.* Such schools are conducted on the part-time-in-school and part-time-in-industry plan. Sometimes it is half-a-day in school and half-a-day in industry, and sometimes it is a week in and a week out, or six weeks in and six weeks out. The principle in any case is the same. The learner gets his vocational training on the

job, under industrial conditions, and his related work and basic civic and social instruction in the school. This work is most frequently found in connection with high schools.

(*d*) *Continuation schools.* In these schools the youth receives from four to twenty hours a week of school instruction at the same time that he is actively engaged in some form of gainful employment. The work is either a continuation of the common integrating subjects, the tool subjects and cultural education, or it involves related work or actual trade-training in line with the employment of the pupil. Such training is usually compulsory and given on the time of the employer, lasting until a specified age, usually sixteen or eighteen years, has been attained.

(*e*) *Evening schools.* The character of the training given in evening schools is similar to that given in continuation schools, but it is not usually compulsory, and is designed for adults and those adolescents who do not come under the compulsory part-time laws, but who are anxious to receive up-grading instruction in their present occupation, training looking toward some other occupation, or additional cultural, integrating, or preparatory school work of some character.

(*f*) *Vocational departments of cosmopolitan high schools.* Such departments usually undertake to offer basic vocational training, either in mechanical, trade and commercial, agricultural or other vocations. These vocational education departments usually succeed in giving what is designated as vocational arts education, rather than specific vocational education. That is to say, they usually result in a contribution to liberal education and to vocational guidance and the cultivation of vocational ideals, rather than in vocational skills that are available for profitable employment in the occupations studied.

(*g*) *Technical high schools.* These schools, in addition to

the usual program of liberal studies, offer courses designed to be preparatory to engineering occupations, and to a reasonable degree function in skilled mechanical abilities along a few lines where equipment and shop practice are adequate. The general tendency is for so-called technical high schools to become cosmopolitan high schools, with particularly well-equipped shops along mechanical and pre-engineering lines.

Need for organized vocational guidance as an adjunct of any plan for vocational education. Both from the standpoint of the saving of time and energy on the part of pupils, and of accomplishing desired results at a minimum of cost to the public, vocational guidance should have a place in any well-considered plan for public vocational education. On this point Brewer says:[1]

> A system of vocational education based either on uncritical choices of occupations or on arbitrary assignment, or on the exigencies of the vocational school itself, is necessarily grounded on sand. Suggestion, chance fascination, occupations of relatives, accidental environment, desire to be with associates, and a hundred and one other erroneous bases, lead children to choose one course rather than another; and in view of these facts there seems to be little certainty that they will use the vocational education when they get it.

Since the cost of mechanical, industrial, trade, and various types of shop practice is from one and one-half to two times as much as the cost for academic subjects, it is important that a considerable degree of care should be exercised in selecting pupils for the more specialized types of training represented by the all-day trade schools and the technical courses in the vocational departments of the high schools.

[1] Brewer, John M. "The Need for Vocational Guidance in a Program of Vocational Education"; in *Educational Administration and Supervision*, vol. 6, pp. 127 ff.

As an illustration of the turn-over in all-day trade schools may be cited the Massachusetts schools of that type; that is, day industrial schools for boys and girls. During the school year 1921–22 there were 7899 enrollments in day industrial schools of both types, and 4650 withdrawals, or 60 per cent. During the same time only 205 graduated — that is, completed training for the trade at which engaged, or 2.5 per cent of those enrolled. This situation indicates a lack of proper guidance in the selection of trades for which to train on the part of the boys and girls in these day industrial schools.[1]

When to the high percentage of withdrawals from trade and industrial courses we add the relatively high percentage of those who, after completing the training for a given trade or occupation, do not enter that occupation at all, we begin to see how much waste effort there is in the haphazard method of selecting vocational objectives and vocational courses of study leading to certain objectives. That there will always be a certain amount of shifting from one occupation to another, or failure to enter the occupation for which trained, no one can doubt, but with the increasing complexity of occupations and the increase in the proportion of specialized fields of effort, much caution should be exercised by an individual before embarking on a course of training that will require several years for its completion. This is merely another way of saying that a considerable amount of time spent in exploration and study of various occupations will be well expended, if it results in the discovery of just the occupation for which one is fitted and in which he will find satisfaction after acquiring the necessary training. It is the part of wisdom, economy, and common sense, there-

[1] Report: *State-Aided Vocational and Part-Time Education in Massachusetts*, 1921–22, p. 37. Bureau of Education (Massachusetts) Bulletin no. 4, 1923.

fore, for the public schools to provide adequate vocational guidance as a part of any program of vocational education.

II. Vocational Guidance Methods in Vocational Schools and Courses

The junior high school. Try-out and exploration courses in junior high schools were described in Chapter VII, and methods of imparting vocational information in junior and senior high schools, were taken up in Chapter XIII. Additional light will be thrown on the correlation between vocational education and vocational guidance by a brief description of the methods followed in the junior high schools of Rochester, New York.

In the junior high schools of Rochester the general try-out courses are given in the 7-A grade. Every boy is required to take one period of shop work a day:[1]

> There are two try-out shops. One is a general utility shop with a limited equipment for wood-working, sheet metal, concrete, and electricity. Boys entering seventh B grade in the junior high school receive instruction in this shop. For boys in the seventh A grade an elementary machine shop equipped with light metal working machines is provided. To boys who are about to make a choice of curriculum, these two seventh-grade try-out shops offer a means of familiarizing themselves with hand processes in wood, metal and other materials. The experience thus gained helps the pupils to understand the opportunities offered in the technical, or industrial curriculum, and so enables them to choose wisely when they elect a curriculum at the beginning of the eighth grade. The types of shops for the eighth and ninth grade boys cover the wood-working, metal and electrical trades, as well as graphic and commercial art.

Describing the guidance methods employed, the report above quoted, goes on to say:[2]

[1] *Bulletin on the Junior High Schools of Rochester, New York*, p. 103. 1923.

[2] *Op. cit.*, p. 20.

In the seventh grade all of the pupils follow the same curriculum, and the work is regarded in the nature of a "try-out." The teachers are all conscious of the fact that at the end of the seventh A grade a choice must be made that is of vital importance to the pupil. They study carefully the mental abilities and manual dexterities of their pupils that they may counsel wisely with reference to the choice of a curriculum, which a pupil may follow through the eighth and ninth grades, or from which he may transfer at the end of the semester. . . . Five curriculums are offered, — the foreign language, technical, commercial, industrial arts for boys, and household arts for girls. The following persons assist in the selection of a curriculum: the pupil, the parent, the home room teacher, the hand-work teacher, the guidance teacher and the counselors. The counselors are regular teachers who are allowed from one to three periods each week for visiting homes to consult with parents and pupils with reference to the selection of a curriculum as well as concerning scholarship and discipline. The guidance teacher talks with each pupil at the close of the seventh A concerning the choice of a curriculum. The curriculum thus chosen is followed through the eighth and ninth grades, unless there is some reason for choosing another. In the ninth A grade the guidance teacher also assists the pupil in selecting the subjects in senior high school which will prepare them for college or, for some future line of work that they may desire to enter.

The Industrial-Technical course. Beginning with the eighth grade in the Rochester junior high schools there is an Industrial-Technical course, which continues through the ninth grade. This course serves both the purpose of a general industrial information course and a pre-vocational training course. In the eighth grade four and a half periods of shop work, and in the ninth grade six periods of shop work are required. The boys spend one term in a given shop, and then change to another shop for the next term. Thus they gain a definite knowledge of five or six kinds of industrial work. Another course is the Vocational Course, which may be entered by any boy in the junior high school, provided he is over fourteen years of age. Upon entrance the boy, in

agreement with his parents, may choose the trade which he will follow. He is then given a ten weeks' intensive try-out in that trade. If he makes good he is given the opportunity to continue the training for that trade for two years, when he may enter the Rochester Trade School and in three years obtain the State Industrial High School Diploma. The boys in this course do not carry on the regular junior high-school work, but devote three hours per day to shop work, ninety minutes to academic studies, and ninety minutes to related subjects. Only boys who expect to drop out at age sixteen or before are admitted to this course.

Influence of guidance on holding power of Rochester schools. The argument that vocational guidance and the offering of opportunities for preliminary vocational education tend to encourage early school-leaving is effectively refuted by Rochester's results. Prior to the organization of the junior high schools, along the lines above described, forty-one out of every one hundred pupils completing the eighth grade left school, while at present only fourteen out of every hundred leave school. The over-age pupils in the Rochester schools, who formerly dropped out of school entirely on completing the eighth grade or reaching the legal school-leaving age, are now held in school because of the differentiated curriculums and the opportunity to secure vocational training. Recently, of 124 pupils in the Industrial and Household Arts courses of the ninth grade, 87.9 per cent could legally have left school but did not. Only 10, or 8.06 per cent, of the 124 pupils in those courses for that year dropped out. This was in the Washington Junior High School,[1] and is an excellent example of what can be accomplished when differentiated vocational opportunities, as well as careful guidance and direction, are provided.

Guidance possibilities in an all-day trade school. Refer-

[1] *Op. cit.*, p. 177.

ence was made above to the high percentage of turnover in certain all-day trade schools. This turnover is due partly to the natural restlessness of adolescents who have become dissatisfied with the ordinary school subjects, and partly to the lack of guidance in selecting the occupation for which training should be undertaken. The training given, even where a few weeks only are devoted to a certain course, is not entirely useless. It amounts to trade-finding or vocational-guidance training, of a kind, but since a trade school is supposed to be giving specific training which fits a person to carry-on in an occupation, the preliminary try-out and exploration work should be done, as in the case of the Rochester schools, in the seventh grade of the junior high school, or intermediate school.

For those who come to the trade school without such preliminary trade-finding or guidance advantages, the trade school itself should provide preliminary guidance and testing [1] or try-out courses before accepting pupils finally for trade-training courses involving a year or more of application. For this purpose an increasing use will be found for trade and vocational guidance tests in the realm of ability to deal with mechanisms, such as are being developed by the Institute for Educational Research.[2] General intelligence tests will also be of value, since, contrary to the apparent stock belief of academic teachers, pupils of low I.Q. do not always succeed at mechanical tasks. If intelligence, mechanical ability, interest in the occupation, etc., are ascertained, and these supplemented with a few weeks of intensive try-out in the operations of the trade itself, aimless

[1] Brown, Lucy L. "Vocational Testing in Trade Extension Classes"; in *The Vocational Guidance Magazine* (Bulletin), vol. II (February, 1924), pp. 110–11.

[2] Toops, H. A. *Tests for the Vocational Guidance of Children, Thirteen to Sixteen Years of Age*, pp. 17–62. Teachers' College Contributions to Education, no. 136. 1923.

drifting can be checked and a very large percentage of the present turnover eliminated.

The vocational guidance features of the Manhattan Trade School for Girls, New York, are thus outlined by one of the teachers:[1]

> Vocational guidance in the Manhattan Trade School is woven into the whole course of training. . . . The majority of the students have made their choice at the time they apply for admission. Some have been helped in this choice by pre-vocational courses in the elementary school, by vocational work in the junior high school, by talks with principals, teachers, or counselors, and often by a visit to the school in class groups. The minority, not so certain of what they want, are helped in their initial choice by the general office staff, who give information about the specific trades and use their experience in judging the individual's fitness to various lines. . . . In no case is the choice of trade an unchangeable decision. Every trade teacher is constantly estimating the pupils in her class in terms of trade success, and prompt action is taken in offering the student transference to another department. This flexibility is a necessary part of a vocational school, and the "feel" of the trade which the girl gets in the process of adjustment shows her in a convincing way why the change should be made. By vocational guidance we should mean not only the initial choice of a vocation, but the many choices that have to be made in adjusting oneself to vocational life.

To the academic work of the Manhattan school the Dalton plan of individual instruction under "contract" assignments is applied with satisfactory results. Classes in trade ethics, social and industrial relations, or occupational hygiene still further aid in the problems of vocational choice and adjustment. One teacher devotes her entire time to home visitation and the study of personal problems. The placement department finds employment for new graduates and assists other graduates in finding new positions. The

[1] Adams, Jessie B. "Vocational Guidance in the Manhattan Trade School for Girls"; in *The Vocational Guidance Magazine* (Bulletin), vol. II (February, 1924), pp. 109 ff

follow-up of all students for two years is intensive, but an effort is made to follow up all graduates for a period of ten years, careful records being kept.

Guidance possibilities in the continuation school.[1] The continuation school serves and meets the needs of boys and girls who, for economic reasons, or dissatisfaction with the customary type of schooling, or lack of ability to succeed in school work, or from a combination of any or all of these reasons, leave school early and go to work. Ordinarily these children would drift from job to job, either engaging in work ill-suited to their abilities, or remaining too long in positions having no promise of development or promotion, and thus losing opportunities for advancement. Of all the groups of children in our schools they are the most acutely in need of vocational, as well as social, moral, and recreational guidance. The continuation school, which does not recognize its opportunity, not to mention its responsibility in this respect, cannot claim to be functioning as it should.

One of the criticisms of the vocational information and advice, given by the teacher of academic subjects in junior and senior high schools, is that it is not based on practical experience or first-hand knowledge of occupations. Such an objection cannot be offered to the vocational information and guidance given by continuation school teachers. Each such teacher has had from five to ten years of practical trade experience along the line which he is teaching, and is given time to keep in active touch with the latest developments and processes in that occupation. He is thus not only in a position to teach his pupils the elements of his craft, but to give them as well reliable information in regard to working conditions, possibilities of employment, and obstacles to be overcome, in securing advancement.

[1] *Vocational Guidance in the Part-Time Schools*, United States Bureau of Education, Bulletin (1921) no. 5, pp. 12–15.

The Boston Continuation School. The methods in vogue at the Boston Continuation School are more or less typical of the possibilities of combining effective vocational guidance with continuation courses. This school has about 5000 pupils, 55 per cent boys and 45 per cent girls, organized in two divisions, with separate buildings and equipment for boys and girls, but under one principal. For boys, woodworking, machine, electrical, sheet metal, printing, commercial, and salesmanship courses are offered. Cooking, dressmaking, millinery, power-machine operating, and commercial courses are provided for the girls.

Continuation education in Massachusetts is compulsory for all employed boys and girls fourteen and fifteen years of age, inclusive, for a minimum of four hours a week. No child is permitted to leave school to go to work until he has reached his fourteenth birthday, has completed the sixth elementary grade, has a signed promise of employment, and passes a doctor's examination showing him to be physically fit for the employment contemplated. After starting on employment and continuation school attendance, if at any time he is out of employment he is required to attend the continuation school a minimum of twenty hours per week until reëmployed.

Every teacher in the Boston Continuation School, whether a teacher of academic or shop subjects, is an educational and vocational counselor. All the class work is individual, the courses being planned in short units to fit the needs of pupils entering and leaving the school at odd times. Training for citizenship is emphasized, as well as the special habits and attitudes essential for vocational success. Each teacher spends from one to two periods per day in visiting the homes or places of employment of his pupils, thus coming to know them more intimately than it is possible for teachers in the regular schools to know their pupils. When to the

intimate personal knowledge of his pupils we add the opportunity which the continuation teacher has to observe the boy or girl in action in the shop practice, it can readily be seen that he is in an excellent position to give helpful counsel. A few minutes each day is given to "shop talks" by the teacher, or to group discussions of the commercial and industrial opportunities in and about Boston.

The sub-master in charge of the boys' division of the Boston Continuation School estimates that about seventy per cent of the work done in the school is of a pre-vocational or try-out nature. Such work is not necessarily along the line of the particular job on which the pupil happens to be engaged. He is permitted to pursue it because of an expressed interest. What he does along this line is carefully observed, and if he does not seem to be adapted to that type of work he is transferred to another shop. If he does take to the work, and shows aptitude for it, he may continue along the same line during the remainder of his stay in the continuation school. As soon as a boy shows native capacity for a certain type of work, an effort is made to secure employment for him in that or a related occupation. This makes it possible to tie up the work in the continuation shop with his job. About ten per cent of the work done by the boys in the school is estimated to be trade extension work; that is, work which fits for or promotes efficiency in the occupation at which the pupil is engaged.

The Boston Continuation School has its own employment service and is in active touch with about one thousand industrial and commercial firms who employ minors, fourteen to sixteen years of age. Because of the efficiency of its placement and follow-up service the school obtains and holds an influence over its pupils which makes possible the driving home of many valuable lessons in personal conduct, social relations, and vocational ethics. This is particularly

true in re-placement cases. It may be that a boy has lost a position through laziness, lack of skill, or some other remediable fault. The placement division knows all about him, and undertakes to secure his coöperation in removing the faults complained of by the first employer in consideration of securing for him another chance. It also frequently happens that the follow-up of complaints of employers results in changes in the types of work required of the children, and better adjustment in the position instead of dismissal. Because the policy of the school is to stand up at all times for the best interest of the children it enlists their confidence, and is able to secure the coöperation both of the employers and of the young workers themselves in the measures it undertakes for their personal and vocational betterment.

The evening school and vocational guidance. The problem of the evening school [1] is somewhat different from that of the continuation school. The latter deals with adolescents fourteen to sixteen or eighteen — according to the nature of the State law governing the matter — and attendance is compulsory. Attendance at the evening school is voluntary, and the students are usually in the late adolescent or adult stage of development. As a general thing, also, the evening school offers a wider range of subjects than is found in the continuation school, since it seeks to afford full high-school preparation for working boys and girls who desire to complete a high-school course, either for the sake of the added range of employability which a high-school diploma carries with it, or with a view to continuing their education in some higher institution for which high-school graduation is a prerequisite. The evening school, of the liberal and

[1] Fletcher, Ethel S. "Vocational Guidance in the Elementary, Undergraduate and Evening High-School Group"; in *The Vocational Guidance Magazine*, vol. III (October, 1924), pp. 15–17.

practical-arts variety, also offers to adults of foreign birth an opportunity to learn the English language and receive instruction in the elements of citizenship — that is, in Americanization. In addition to serving the groups just mentioned, it furnishes pre-vocational and trade-extension courses for those adolescents beyond the compulsory continuation school age.

Educational and Vocational Guidance needed in the evening school. While those who attend evening school are more apt to be engaged in occupations in which they may have found their place than is the case with continuation-school pupils, the need for educational and vocational guidance is nevertheless very great. Unfortunately, effective guidance is less common in connection with evening schools than is ordinarily the case with continuation schools. There are several reasons for this. One is that too frequently the evening-school teacher is one who also teaches in the day school, thus coming to the evening school tired out with the day's work before the evening classes begin. Another reason is that teachers of evening classes give all of their time to teaching, and have no spare time for consultation with or guidance of their pupils. A third reason is that evening classes tend to become too large for individual instruction and attention. The need for guidance is shown by the attendance which is seldom more than sixty per cent of the enrollment, and in some instances not more than twenty per cent of the enrollment.

Improving evening school guidance. The guidance function of the evening school can be improved in several ways:

(*a*) *A separate personnel*, specially trained for evening school work, should be substituted for the present double-shift teaching force. No industrial concern would expect to secure efficient service if it permitted its employees to

work all day and half of the night. Either the day teaching or the evening teaching suffers — generally both. Evening-school pupils themselves have usually put in a hard day's work, and to do their best need the stimulus of a wide-awake, enthusiastic, and energetic teacher. A teacher who has already taught five or six periods in regular elementary or high-school classes can hardly be expected to measure up to these specifications.

(*b*) *A three-period session.* The two-hour evening session should be divided into three forty-minute periods. All teachers should have two teaching periods and one consultation period. This consultation period should be utilized by the teacher for getting better acquainted with his pupils, and for giving educational and vocational advice. This would enable the teachers better to adapt their teaching to the individual needs of their pupils, and would greatly increase their teaching efficiency.

(*c*) *An organized guidance service.* In addition to the above items there should be an organized guidance service for the evening school, with a full-time counselor giving his attention to the supervision of the guidance work of the teachers and, if possible, putting in enough daytime service to enable him to draw full salary. The daytime service might well be devoted to visits to the homes and places of employment of evening-school pupils particularly in need of help and guidance. If the school system had an employment and follow-up bureau the evening-school counselor could coöperate with this agency in promoting the employment interests of evening-school pupils. Otherwise he could head up this important service himself, thus gaining an additional hold upon the interest and loyalty of the evening school's constituency.

Guidance in vocational and part-time coöperative high schools. Guidance activities in vocational high schools

will follow much the same lines as indicated in the discussion of vocational guidance methods in secondary schools (Chapter XII), but there are enough points of difference to warrant a reference to these special types of schools at this point. The vocational emphasis in such high schools is much greater than in cosmopolitan high schools, and they are on that account more likely to attract those pupils who expect to complete their education with the high school, or who, having already made up their minds to follow some engineering vocation, attend the high school which offers the best preliminary training for that group of occupations. On this account the need for guidance to increase the chances of wise selection of a life-career are more acute. Also, since the school is presumably well equipped with technical, industrial and commercial shops and laboratories, the opportunities are better for giving either vocational testing or preliminary vocational training courses.

Guidance in the Washington Irving High School. The vocational and educational guidance program of the Washington Irving High School, New York City, is perhaps as good an illustration of how the work should be done as any that could be given. The vocational guidance program of this high school includes educational, vocational, and moral guidance; psychological testing; physical welfare work; and placement and follow-up in employment. The school has a registration of about 5800 students, and is in session from 8 A.M. to 5 P.M. It is a vocational high school for girls.

Pre-guidance of elementary pupils is given by teachers of the Washington Irving High School, who go to the elementary schools of the district and tell of the opportunities offered in the different courses. Prior to entering high school these elementary pupils, with the aid of the high-school representatives and their own teachers or vocational

advisers, choose the high-school courses which they wish to enter:[1]

As soon as the term begins the vocational advisers examine the intelligence quotients (earned) in the group tests and select the papers with an I.Q. below normal. . . . Their work should be watched closely. The Stanford Revision of the Binet Test is given to these girls as soon as possible in the term. The vocational advisers prepare the cases of these girls for the psychologist, giving her a summary of the elementary school record and whatever information they may have about the girl. The results of these tests are recorded on the scholarship record sheets and at the end of the first quarter they are compared with the records of work done by the pupils in that period. Interviews with the advisers follow. All this information is the basis for advice to the pupil about her future work, and about the choice of an elective subject for the following term. . . . In giving this advice we try to stress the things the girl can do well and we do not emphasize failures. We try to help her to be just as enthusiastic about another field of work as the one which it seems best for her to abandon. *We aim to advise the girl so that she may get the most possible from high school, whether she completes the course or stays only for a brief period.*

It would be well for the children in all of our schools, both elementary and high, if the last sentence quoted might become the keynote of their guidance programs.

Other features of the guidance program of the Washington Irving High School, are as follows:

1. The vocational advisers do intensive work with the first year pupils, helping them to make intelligent vocational plans.
2. A course on "Industries of New York City," is offered during the second term of the first year. Visits, supplementing the classroom work, are made to commercial and industrial establishments.
3. Student self-government and special student activities give guidance along civic, social and moral lines.

[1] Kiel, Minnie. "Vocational Guidance in the Washington Irving High School, New York"; in *The Vocational Guidance Magazine* (Bulletin), vol. II (February, 1924), pp. 104 ff.

4. The placement office secures positions for graduates, for those who drop out, and for those who want part-time employment in order to continue their studies.
5. The vocational advisers keep in touch with part-time students and others in employments by a careful system of follow-up. They are enabled thus to secure valuable data for reshaping the vocational courses of the high school, and also to keep abreast of new demands in the occupations in which their students are employed.
6. The ultimate goal of the vocational guidance program of the Washington Irving High School, is to enlist the entire teaching and administrative staff in the effort to help the girls to help themselves — to cultivate in them the capacity for self-guidance.

The advantages of seeking to correlate the guidance program of a school system with the vocational education program of that system should be apparent from the examples of successful experiments, above cited, where such correlation has been attempted. Failure to do so means not only wasted materials, damaged equipment, and the ultimate discrediting of the entire vocational education effort, but the dissipation of precious time by misfit pupils who undertake work for which they have neither genuine inclination nor aptitude. One dollar, wisely spent on preliminary guidance, may save many hundreds of dollars of the taxpayers' money, and, what is of vastly greater importance, may result in directing the energy and enthusiasm of the person so guided along the line of his real life-career.

QUESTIONS AND PROBLEMS

1. Make a study of the present occupations of the graduates of a trade school, and find out what percentage are now engaged in the occupations for which they were trained.
2. How would you proceed to discover the occupations for which a public school system might undertake to give specific vocational training.
3. What vocational education courses, given in high schools, may best be called vocational guidance or try-out courses, rather than vocational training courses in a strict sense?

4. What is the law in your State, with reference to part-time and continuation education? What is the legal school-leaving age?
5. What are the conditions which must be met by a high school in your State before it is entitled to receive Smith-Hughes funds from State and Federal sources?
6. Make an investigation of the nearest evening school and find out to what extent, if any, the school is making use of organized guidance.
7. What proportion of those who pay the initial fee for a correspondence course ever complete the course? How could you apply the principles of guidance to such cases?
8. The Benton Harbor, Michigan high school pays the correspondence school fees for certain of its pupils, to enable them to secure courses not offered in the high school along the line of their vocational interest. The work may be done during high school hours, and high school credit earned when course is completed. Is this procedure advisable as a means of enriching the program of study in a small high school?
9. Outline the duties and responsibilities of the coördinator in the part-time and continuation schools under the Smith-Hughes law.
10. What are the advantages of a part-time, coöperative, industrial high school, where the students work two weeks in the industry and then two weeks in the school, in alternating pairs? Is there such a high school in your vicinity? How successful is the experiment? What engineering school employs this plan?
11. Make a detailed estimate of the cost per pupil of providing adequate vocational guidance in an evening school having 2000 pupils, on the plan suggested in this chapter.

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CHAPTER XV

THE ORGANIZATION OF GUIDANCE

I. The Working Tools of Guidance

Tests. Tests of various types have come to occupy a very important place in the process of exploring the abilities of pupils. The uses to which tests of all varieties may be applied in the discovery of learning capacity, character traits, and vocational aptitudes have been set forth in previous chapters.[1] It will be profitable, however, to classify such tests, and to indicate where the best extant information regarding their character and validity is to be had. The tests which are at present being employed in educational and vocational guidance may be classified under three main heads:

1. *Mental tests.* It is no exaggeration to say that millions of mental tests are printed and used by school administrators every year. New tests, both of the individual type and the group type, are being brought out, and modifications in tests already widely used are being constantly made. Compilations of available tests are, therefore, of necessity tentative, and are given simply for what they are worth.[2] The superintendent, principal, or guidance counselor intending to make use of intelligence tests for purposes of exploration should first of all secure the services of some person trained in tests and measurements and instruct that person to make selection among available standardized tests of those best suited to the use to which they are to be put. In addition to care in selecting the tests to be applied, the administrator will do well to make sure that proper safeguards are placed about the test results in order that the testing program may not be discredited through indiscreet publicity, and that caution duly mixed with common sense is exer-

[1] See Chapters II, III, and IV.

[2] *Selected References*, this chapter, under "Mental Test Information."

cised in the interpretation and application of test results to specific cases.

2. *Subject-matter tests.*[1] Tests of accomplishment in school subjects have been developed for both the elementary and the secondary divisions of the school system. Some of these tests are measures of knowledge and skills already attained and make possible comparisons between children of the same school grade in different cities or in the same school district. Some subject-matter tests are designed to be diagnostic — that is, either to reveal potential skill or to reveal present weaknesses with a view to remedial teaching. In selecting such tests, care should be exercised to employ both the quantitative and the qualitative measures. Final selection of educational tests should be made from among those which have been thoroughly standardized and for which there is a carefully worked-out procedure both as to application and interpretation.

3. *Vocational-guidance tests.*[2] The development of tests in this field has not kept pace with the development of mental and pedagogical tests. Beginnings have been made, however, and school administrators, before undertaking to use such tests, should make a study of the existing contributions along that line. For some time to come it will doubtless be found that tests designed to facilitate the selection of employees, and applied by an industrial psychologist in a very limited field, will prove to be most practical. Vocational-guidance tests may come to be useful in indicating the general vocational field in which a person would be most apt to succeed. There is justification for extensive experimentation with such tests, but guidance based on results obtained should be extremely conservative.

Forms and scales for securing and recording guidance data.[3] There is very little uniformity in the practice of different school systems in the matter of forms for securing and recording data. The best plan is to have as few forms as possible, and to have these worked out with a view to

[1] *Selected References*, this chapter, under "Educational Test Information."

[2] *Selected References*, this chapter, under "Vocational Guidance Test Information."

[3] *Selected References*, this chapter, under "Guidance Forms and Rating Scales."

meeting local needs and conditions. One can easily learn of other schools where a working program of guidance is in operation and secure copies of the forms and scales used in that system. The danger is that there will be too much attention to gathering data and too little to an effective use of the information gained. It should also be borne in mind that a multiplication of record cards and forms entails an extensive filing system with a proportionate amount of clerical service to keep the records up to date and in usable condition. The best practice is to reduce permanent records to a minimum consistent with accuracy and reliability, and to maintain these records in such a filing system as shall render them easily accessible to the guidance counselor as well as to the administrative officers of the school system.

The case method of filing. The customary method of filing in public school systems is to have health records in one file, school marks and other educational data in another file, and test records or social data in another file. Frequently these data are recorded on cards of different sizes and great variety as to form, with an inevitable tendency to duplication. In order to get at all the information relating to a particular case, it is necessary to consult a bewildering number of filing cases or record books. This means an undue amount of wasted time and effort.

A better method of filing is the case method. All the data regarding a given child are kept in a folder of convenient size. The regulation letter-head, size $8\frac{1}{2} \times 11$ inches, could then be made the standard size for all printed or mimeographed cards or forms used for all purposes. Educational data, intelligence test data, social data, and all significant information about each child could be kept in the child's folder and filed for ready access in a letter-filing cabinet. Such a case system of filing would make quickly available to guidance counselors all the data bearing on a given case in

a minimum of time. Additional data could be added as gathered, and the folder would become a most effective cumulative record of the pupil's abilities, characteristics, interests, and achievements.

Books, magazines, and pamphlets.[1] The guidance counselor will want to have in his own private library a selected number of books dealing with the principles and organization of educational and vocational guidance. He should also subscribe to two or three magazines in the guidance or related fields in order to keep abreast of the current developments. These books and magazines should be kept in the counselor's or principal's office in order that other teachers may have access to them.

The books and pamphlets relating to specific occupations should be either in the counselor's office or in an alcove in the school library. Here also should be gathered all the catalogues of colleges, normal schools, business and technical schools. These are usually available for the asking, and should be kept up to date. Not only should the pupils have access to such collections of books and pamphlets, but special effort should be made to make the collection attractive.

II. Guidance Personnel

The classroom teacher. The classroom teacher is the key person in any effort to organize a guidance program for any unit of the public school system. There are four million elementary-school children — or twenty per cent of the total number of such children — attending school in one-room schools. Whatever is done in the way of educational and vocational guidance for these children will of necessity be done by their teachers. Unfortunately, the one-room school represents the weakest link in our educa-

[1] *Selected References*, this chapter, "Guidance Bibliographies."

tional chain, and suffers through having to absorb the teachers who are least well trained.[1]

Among secondary schools the small high school represents a similar problem to that of the one-room elementary school. There are 11,141 high schools, or 79 per cent of the total number, in rural and small village communities having fewer than 2500 inhabitants. These small high schools minister to 775,537 pupils, or 31 per cent of the total high-school population in the United States.[2] The median rural high school is a three-teacher school having 60 pupils. The median city high school has 28 teachers and 675 pupils.[3] It goes almost without saying that a high school which has 28 teachers is able to offer a much richer program of studies, affording opportunity for a much greater diversity of training, than can possibly be had in a high school having two, three, or four teachers. The latter type of high school, which represents more than fifty per cent of the high schools in the United States, is able to offer nothing more than the barest possible outline of a secondary education. In the small rural high school, as in the one-room elementary school, whatever is done in the matter of educational and vocational guidance must be done by the members of the teaching staff, including always the principal.

Since guidance is just as necessary and vital a factor in the lives of rural children, both elementary and secondary, as in the lives of children living in urban communities, it is incumbent upon those who have the training of teachers to see that those who go into the rural communities have specific training along the lines of educational, vocational,

[1] National Educational Association, *Research Bulletin*, vol. 1, no. 1 (1923), pp. 40–43.

[2] United States Bureau of Education, Bulletin (1924) no. 7, *Statistics of Public High Schools, 1921–22*, p. 21.

[3] United States Bureau of Education, Bulletin (1919) no. 91, *Statistics of Public High Schools, 1917–18.*

and cultural guidance. The greatest need in relation to the guidance movement at the present time is the multiplication of centers where such training may be had, either in connection with normal schools, teachers colleges, and universities, or in the form of extension courses made available to rural and small-village teachers.

Duties of those who perform the guidance function in public schools. Whether the guidance function is performed by a classroom teacher or by a special counselor giving part time or full time to the task, there are certain duties or services which must be performed to the best of the counselor's ability. These duties will be considered under the following headings:

1. *Discovery of abilities of school children.* This involves a knowledge of, and training in, the use of mental, pedagogical, and other tests; skill in gathering supplementary data regarding social and economic status, special interests, and all other factors which influence school progress.

2. *Adjustment of school tasks to needs and abilities of the individual child.* Successful accomplishment of this phase of guidance requires a knowledge of methods of ability grouping, special classes, or individual instruction. A knowledge of the principles of curriculum-making and of the best ways in which to organize courses of study to meet individual needs is also essential.

3. *The coördination of school activities with the aims of guidance.* The counselor needs to know how to organize school activities in such a way as to promote appropriate social, physical, æsthetic, and character-building habits and attitudes. Leadership and guidance in school activities will be the responsibility of several different teachers, but the person in charge of guidance should see to it that the values latent in the various activities are brought out.

4. *The giving of counsel relating to the selection of, and preparation for, a life-career.* Vocational counseling involves the gathering and imparting of vocational information, assistance in deciding upon a vocational objective and securing the necessary training, help in finding suitable positions when the training is completed, and the following-up of the individual with a view to assisting him to make progress in his vocation.

5. *The keeping of a usable system of records.* Sound advice cannot be based on subjective impressions unsupported by objective data. It is, therefore, necessary to maintain as comprehensive a system of records as the size and resources of the district will warrant. Results of mental, pedagogical, and vocational-guidance tests; questionnaires, character-trait scales, and personal interviews; health records, teachers' estimates and reactions — all these attempts to secure an appraisement of the pupil's abilities, interests, ambitions, etc., should be kept in a folder for use in the "case method" of handling guidance problems.

6. *The organization and carrying-out of an adequate guidance program.* The person responsible for guidance needs to know how to adapt the guidance program to the size and resources of the school or school system which is to be served. If the entire program is to be carried out by classroom teachers as a part of their regular duties, but without extra time allowed, it will require careful planning by the principal to see that the necessary duties are distributed in such a way as not to amount to an undue burden on any one teacher. If it is possible to assign one teacher to act as director of the guidance work and to relieve that teacher of part of her teaching load, the responsibility for organizing the work can be placed on the teacher so assigned. Where, as in the larger cities, there is a Bureau of Research and Guidance, the entire guidance program will be under its supervision, and there will be full-time or part-time counselors in every school, elementary or high. The director of the bureau will be ordinarily of the rank of an associate superintendent and will plan and carry out, with the aid of the special counselors, research assistants, and clerical help, as complete and thoroughgoing a program of guidance as the Superintendent of Schools will endorse and the Board of Education will authorize.

From the foregoing analysis of the duties and functions of the guidance personnel in a public school system, it will be readily seen that the extent of those duties and functions will depend in large measure upon the size, resources, and progressiveness of the educational unit concerned. There are, however, one-room rural schools where an interested, wide-awake, and well-trained teacher is finding the time to perform all of the essential functions of the best type of

counselor. There are large city systems where practically nothing has been done with a guidance program, except as individual principals or teachers have taken the initiative in their schools or classrooms. Before there can be an effective program of guidance organized and carried out in any unit of administration, large or small, there must be an interest in, and an understanding of, the general principles of educational and vocational guidance on the part of those responsible for the educational policy in a community.

Personal characteristics and qualifications desirable in school counselors and directors of advisement. Three important characteristics should at least be mentioned:

(*a*) *Social.* The successful counselor will usually be a person in whom the social instincts have been highly cultivated. The fact that a person possesses this qualification will be manifest in his ability to meet people — especially young people — easily, and also in his ability to establish quickly relations of confidence and friendship with them. It is not the dominating type of social leadership that is wanted. Rather, it is the sympathetic, tactful type of person with the capacity for insight into the possibilities of boys and girls, and the ability to inspire them to the kind of effort necessary to measure up to their true endowment. As Herbert Hoover [1] puts it, it is the function of the counselor to "discover" latent talent, to "create character" in the child possessing that talent, and to "inspire" that child in such a way that he will make the necessary effort to realize his life-dreams and aspirations. This requires sympathy — ability to enter into other people's point of view, and to understand their problems; insight — capacity to get quickly at the heart of another person's difficulty; and tact — skill in handling people so that they will do the things

[1] Hoover, Herbert E. Quoted in the National Educational Association, *Research Bulletin*, vol. 1, no. 1 (January, 1923), p. 12.

necessary for their own best interest. The quiet, persuasive, friendly person will achieve more lasting results in first-hand, personal-contact counseling than will the over-energetic, dominating person.

(*b*) *Education.* For the classroom teacher in the elementary school, the minimum of training should be two years of normal-school work beyond a four-year high-school course. In order to exercise the guidance function effectively, she should have had in the normal school a course in principles of educational and vocational guidance, as well as at least a course in educational tests and measurements. The full- or part-time counselor in the high school should have had at least an A.B. degree, and should have had courses in economics, sociology, psychology, and education in addition to the courses in guidance and measurements, suggested above for the elementary-school counselor. The Director of Research and Guidance should have a Master's or a Doctor's degree, with specific training along the lines suggested below.

(*c*) *Experience.* The guidance counselor should have had a sufficient experience of life to give him practical judgment, or what is usually called "common sense." This will save him from being either too "cock-sure" or too theoretical. The person going directly into counseling from college or normal school needs to avail himself of every possible opportunity to become familiar with the world's work and its workers. Summer vacation experiences in a variety of occupations will give a better insight into the advantages and disadvantages of those occupations than any amount of reading or study would ever give. There should also be a wide acquaintance with business and industrial enterprises, gained through visitation. The gaining of this experience not only enlarges one's fund of information about occupations and workers, but it gives valuable practice in meeting

people and learning to appreciate their points of view. Actual practice, under supervision, in giving counsel to elementary- or high-school pupils should also be required. Directors should have had teaching experience.

Suggested training program. The following training program or curriculum for full-time counselors, and directors of educational and vocational guidance is suggested:

(*a*) *Elementary school-counselors.* Normal schools should offer, as part of the training of every teacher for the guidance function, courses in economics, which involve a study of occupations and methods of collecting and imparting vocational information; courses in sociology, which include training in methods of investigating home and community conditions affecting school progress or potential delinquency; courses in educational psychology, which stress methods of adapting school work to individual differences in ability among children; and courses in educational tests, measurements, and statistics, which give training in the administration and interpretation of standardized tests available for use in teaching and guidance.

(*b*) *Secondary-school counselors.* An A.B. degree, including fifteen semester hours of work in education. A teaching major, in some subject taught in high schools, of at least twenty-five semester hours, and a teaching minor of at least sixteen semester hours. (In California it is necessary to have eighteen semester units in education, and the equivalent of one year of graduate study beyond the A.B. degree.) Courses in educational psychology, statistics, tests and measurements, vocational education, and educational and vocational guidance are usually offered in the departments or schools of education, and may be offered toward the fifteen semester hours in education required for certification, provided specifically required courses have not filled the quota. In the department of psychology, such courses as

general psychology, mental hygiene, mental measurements, abnormal psychology, psychometry, and industrial psychology are among the offerings from among which two or three elections should be made. In the fields of economics and sociology, courses aggregating ten to fifteen units would be very desirable.

(*c*) *Directors of research and guidance for county or city school systems.* The minimum educational requirement should be a Master's degree or its equivalent in post-graduate work at a recognized university. It is not desirable to specify just what the undergraduate work of candidates for such positions should have been, because many of the persons well qualified to become directors of research and guidance completed their undergraduate work a decade or more ago, when the courses suggested under (*b*) were almost unheard of. In fact, an examination of the undergraduate background of a majority of the present-day directors of research and guidance would reveal the entire lack of education and psychology courses relating to mental and educational measurements, and also relating to educational and vocational guidance. More important than the undergraduate program would be the requirement that all candidates should have had at least two years of teaching experience, and that the graduate year, leading to the Master's degree, should be devoted to specialization along the lines of mental and educational tests and measurements, and to the principles and practice of educational and vocational guidance.

A year of graduate work involves about thirty semester hours of university work. The following distribution of the candidate's time for a credential as director of research and guidance is suggested: (1) Twelve semester hours to be selected from the following courses, or their equivalent: educational psychology, mental deficiency, juvenile de-

linquency, psychology of the school child, educational tests, mental tests, educational statistics. (2) Ten semester hours to be selected from such courses as educational and vocational guidance, applied methods in guidance, vocational education, industrial psychology, personnel management, psychometry, and case-work in psychiatry or mental hygiene. (3) Eight semester hours selected from the offerings in economics and sociology, such as principles of economics, labor problems, public finance, social problems, problems of poverty, immigration, problems of child welfare, and methods of social investigation.

Where training for the duties of elementary and secondary counselors and directors of research and guidance may be secured. One of the best indications of the increasing importance of the guidance movement is to be found in the number of institutions offering courses in one or another phase of educational and vocational guidance. Brewer says:[1]

> In the files of the Bureau of Vocational Guidance at Harvard University it appears that some thirty individuals and as many institutions have offered courses in vocational guidance. No doubt there are fully thirty other places about which we do not know. The importance of coördinating the various efforts in this direction is evident.

Many of the larger normal schools and teachers colleges offer courses equivalent to those suggested for the elementary counselor's training. This is particularly true of their summer sessions, where they undertake to meet the demand of experienced teachers for additional training along these lines. Those who seek the more advanced position of full-time counselor in a high school, or of director of research and guidance in a city system, will find appropriate

[1] Brewer, John M. *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part II, sec. D, p. 186.

courses in universities located in each of the major geographical divisions of the country. Among those best equipped at the present time to furnish such training may be mentioned the following: the Graduate School of Education, Harvard University; Teachers College, Columbia University; Stanford University, Chicago University, New York University, and the universities of Michigan, Indiana, Ohio State, Illinois, Wisconsin, Minnesota, Iowa, Kansas, Washington, and California. Advanced graduate work along the lines of psychology, tests and measurements, vocational and educational guidance, etc., may also be had at most of the universities above mentioned.

Great impetus to the demand for courses in educational and vocational guidance in the State of New York has been given by the New York law which creates the position of "vocational-guidance teacher," and makes provision for reimbursement to school districts, elementary and secondary, for a part of the salaries paid to such workers.[1] The State Board of Education of California issues a credential in "Educational Research and Guidance" which calls for thirty-one semester hours of graduate work, distributed over educational, abnormal, and industrial psychology, educational tests and measurements, psychometry, mental tests, educational statistics, and educational counseling. The Federal Board for Vocational Education has also created a demand for trained guidance-workers through its encouragement of the position of coördinator in the Smith-Hughes vocational work. Counseling as a field of educational service has a strong appeal to persons with a leaning toward the social-service occupations. Approved ways of securing the needful preparation for this new type of life-work are

[1] Payne, Arthur F. "New Legislation in New York State concerning Vocational Guidance"; in *National Vocational Guidance Magazine*, vol 2 (1924), pp. 65–66.

rapidly being developed, and it will not be many years before the supply of trained workers in this field will more nearly equal the demand.

III. Bureaus of Research and Guidance

Scope of work of a bureau of research and guidance. There is an infinite variety of functions performed by city bureaus of research and guidance, but those most frequently reported to investigators are as follows:[1]

1. Testing, both psychological and educational.
2. Classification of pupils.
3. Surveys and statistical summaries of school activities.
4. Organization and supervision of special classes.
5. Educational guidance.
6. Vocational guidance.
7. Standardization of forms and records.
8. Curriculum-making.
9. Test construction.
10. Vocational placement.
11. Attendance supervision.
12. Standards of promotion.
13. Selection and placement of teachers.
14. Publicity.

The functions outlined above cover practically every phase of a complete system of educational and vocational guidance, and, when such functions have been thoroughly carried out, every phase of school work is measurably strengthened. A better knowledge has been gained of the child's innate capacity to learn, of his character traits, of his special interests, aptitudes, and dispositions. There has also been a careful and systematic recording of the data gathered for the use and benefit of all the agencies interested in the child's education. The administrator is able to con-

[1] Martens, Elsie. *Organization and Functions of City Research Bureaus.* United States Bureau of Education, Bulletin, City Leaflet no. 14, 1924.

sult the cumulative record for facts bearing upon proposed changes in the content and methods of teaching the regular school subjects. The teacher is able to gain a more intimate knowledge of his pupils from the records accumulated by the bureau. The educational and vocational counselor, by familiarizing himself with the assembled data, is in a better position to give sound and helpful advice to the pupils whom he serves.

Many bureaus of research and guidance are being established,[1] but there is a tendency on the part of the public to scrutinize very closely the cost of such service in relation to the entire school budget. Costs should be rigidly kept down in order not to attract undue attention to this phase of the work. The best long-distance policy is to maintain the smallest staff, compatible with efficiency, in the central bureau, and to train up part-time workers from among the teachers of the school system. This plan commends itself not only from the standpoint of economy, but also from the standpoint of the greatest good to the greatest number. The bureaus of research and guidance, which have been conducted according to this plan, have invariably "sold themselves" to their communities, because the better the teachers of a school system understand the technique and philosophy of research and guidance, the more ready are they to coöperate with the central bureau. The discovery of a director, who is capable of securing the enthusiastic coöperation of the classroom teachers in carrying out the functions of a research and guidance bureau, is the most vital step in its organization.

Typical bureaus devoted to research and guidance. A few typical research and guidance bureaus will be described:

[1] Edgerton, A. H., and Herr, L. A. "Present Status of Guidance Activities in Public Schools"; in *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part II, p. 7.

(*a*) *The Research and Guidance Bureau of Oakland.* This bureau, as at present constituted, was organized in 1917. The following aims were at that time set up for the conduct of the work of the bureau:

1. *Testing program:* (*a*) mental tests; (*b*) tests of subject-matter and achievement; (*c*) training of teachers for testing.
2. *Statistics:* (*a*) of enrollment; (*b*) of attendance; (*c*) of age, grade, and progress; (*d*) of failures and extra promotions; (*e*) of size of classes.
3. *Special classes.*
4. *School counseling.*

The Oakland Bureau adopted at the outset the policy of keeping the staff of the central bureau down to a minimum. Regular classroom teachers were trained to do the work of testing and counseling,[1] and indoctrinated with a sane philosophy in the matter of interpreting test results and applying the results to their classroom problems. Thus, it happened that, when a sudden wave of economy made necessary a drastic cut in the number of central bureau experts and other employees, it was found to be possible to carry on all of the essential activities of guidance and research with the aid of the part-time workers who had been trained by the bureau.

The work of the bureau has resulted, since 1917, in a material reduction in the percentage of retardation, and a corresponding increase in the percentage of acceleration in the Oakland public schools. A larger proportion of the children are continuing their education beyond the elementary schools than ever before. Opportunity classes, which are not merely "side-pockets" for the collection of the retarded, are to be found in every elementary school. The program of studies has been completely reorganized.

[1] Dickson, Virgil E. *Mental Tests and the Classroom Teacher*, pp. 87–126. World Book Company, New York, 1923.

This was accomplished by means of committees of classroom teachers, under the direction of the bureau of research and guidance. The entire school system is more scientifically organized, and performs its true educational functions more efficiently as a result of the excellent work done by its bureau of research and guidance.

(*b*) *The Pasadena Guidance and Research Bureau.* This bureau was established in 1922, and was the direct outgrowth of an existing Bureau of Child Welfare. The first annual report of the bureau suggests the following as aims to be achieved:[1]

1. Suggesting practical research problems.
2. Finding the persons in the system interested in the attempt to solve such problems.
3. Directing a continuous educational survey throughout the system.
4. Assembling, in meaningful form, the results of the many research activities.
5. Placing these results where they will be of value in modifying methods, curricula, organization, and equipment.

During the first year the bureau carried out successfully an ambitious program. A mental survey of all the children, grades 4 to 12, was made. For grades 4, 5, 6, 7, and 8, an educational survey was made by means of standardized subject-matter tests in reading, arithmetic, spelling, and penmanship. Achievement quotients (A.Q.'s) were computed from the data on mental-test scores and the scores made in tests of school success.

A beginning was also made in another significant research problem — that is, character traits, special interests, and capacities. Students were rated by their teachers on twelve mental and character traits, and on ten special interests and

[1] Hughes, W. Hardin. "Annual Report for 1922–23"; in *Educational Research Bulletin*, vol. 2, nos. 1 and 2 (September-October, 1923), p. 3.

capacities. A relatively high correlation was found between intelligence and desirable character traits, but a number of students with below-average mental ability were found to be doing better than average school work. In almost every such case, however, the student had received high ratings in such character traits as trustworthiness, coöperation, and respect for authority. The bureau has already demonstrated the value of character ratings in educational and vocational guidance.

The possibility of carrying forward a number of significant researches, at very small expense for central-bureau staff and clerical work, has been proved by the success of the Pasadena Bureau. Research committees, made up of classroom teachers and administrative officers, have been organized in each school, elementary and secondary, in the city. These committees assume responsibility, under the supervision of the director, for mental or subject-matter test surveys and for the scoring of the blanks and interpretation of the results. An *Educational Research Bulletin* is edited by the director, who also conducts university extension courses in statistical methods, tests and measurements, and principles of guidance. The teachers thus not only receiving necessary training for their guidance activities, but earn university credit at the same time. In this way active, intelligent coöperation on the part of all teachers and supervisors is secured, and the continuous, self-survey idea is becoming firmly established.

(*c*) *The Department of Vocational Guidance, Providence.*[1] Although known as the Department of Vocational Guidance, this bureau carries on all the essential functions of a bureau of research and guidance. Under its direction mental and

[1] Allen, R. D. "Educational Guidance in High Schools"; in *National Vocational Guidance Bulletin* (now *Magazine*), vol. 1 (January, 1923), pp. 83–86.

educational tests have been given to several thousand children, as a basis for educational guidance. Bright and ambitious children have been given opportunities for rapid promotion, and consistent efforts have been made to adapt the work of the schools more closely to the abilities of all the children. High-school pupils are included in the ability-grouping plans, as well as the elementary-school children. Every effort is made to anticipate and prevent failures by making the necessary adjustments before it is too late.

The "scholarship" idea has probably been more fully developed in connection with the Providence Bureau than elsewhere. Whenever part-time earnings or the family budget fail to make it possible for a child to continue his education, aid is provided by means of temporary scholarships, usually amounting to fifty dollars per term. The funds are collected by private subscription, and managed by the Rhode Island Foundation. The Director of Vocational Guidance, after careful investigation, recommends to the Foundation those worthy of receiving scholarship aid.

The preliminary step in vocational guidance, in Providence, is given in the seventh and eighth grades in the form of vocational information. Special attention is given by the counselors to children who must leave early. These cases are discovered by the use of the personnel charts, previously described.[1] Counselors are instructed to employ every possible means of developing the pupil's capacity for vocational "self-guidance."

The Providence Department of Vocational Guidance is another example of a most efficient bureau devoted to educational and vocational guidance which is run at a minimum of expense. The director has succeeded in securing the cooperation of every classroom teacher in the system, and in

[1] *The Providence Personnel Charts*, R. D. Allen. Published by Lippincott, Philadelphia.

training up efficient research workers and counselors from among the ranks of the regular teaching staff of the Providence public schools.

City bureaus which stress vocational guidance and placement. Three bureaus of this type also will be described:

(*a*) *Chicago.* The Department of Vocational Guidance of Chicago [1] now occupies a building of its own in the Loop district of the city, has a large staff of experts in charge of its many activities, and ranks as one of the most important subdivisions of the administrative machinery of the public school system. The vocational guidance department sees that the provisions of the child-labor laws are strictly enforced. All children fourteen to sixteen years of age, who desire to go to work, must be certified by this department. If a child who wishes to go to work is found to be physically defective, a certificate is refused, and steps are at once taken to put the child under competent medical care with a view to removing the defect. For this purpose contacts are maintained with clinics of all kinds, as well as with rest-camps, sanitoria, and other health and sanitary agencies.

The counseling work of the department is carried on by two types of counselors. District advisers work in the elementary schools, making social case-studies of children under sixteen who have expressed a desire to leave school and go to work. Every effort is made to keep the child in school through adjustments in courses of study or by transfer to a more congenial school. Home conditions, as to economic status, parental exploitation, and other possible factors, are looked into before the child is sent to the central bureau with the recommendation that a work certificate be granted. In the central bureau the child is given a much more thorough examination as to physical, mental, social,

[1] Davis, Anne S. "Guidance in Chicago"; in *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part II, pp. 69–74.

and moral status before being certified. District advisers give full time to the work.

High-school advisers are high-school teachers who give part time to the work of vocational guidance. Their duties are:

1. To advertise the high school in the tributary elementary schools.
2. To assist first-year pupils in selecting subjects and curricula
3. To advise pupils having subject difficulties with a view to reducing the number of failures.
4. To organize methods of imparting vocational information.
5. To give information regarding educational and training opportunities beyond high school.
6. To coöperate with the central bureau in placing both those who must go to work early, and those who go to work after graduating from high school.

The division of placement and follow-up work investigates the desirability of the positions which the children want to fill; tries to re-place those out at work and poorly adjusted; and keeps in touch with all employed boys and girls, with a view to helping them in securing the kinds of upgrading training necessary to hold and make progress in their respective occupations. The department has published a number of attractive pamphlets under such titles as *Are You Thinking? A Chance for Every Child; After High School?* and *Information for Prospective College Students.* Vocational information bulletins, covering twenty-six occupations, have also been published by the Chicago Department.

(*b*) *Pittsburgh.* The organization of the Department of Vocational Guidance in Pittsburgh is heavily weighted on the side of vocational guidance and placement. There is a director, one research secretary, two secretaries for children between the ages of fourteen and sixteen who apply for work certificates, four secretaries in the placement office for

persons over sixteen years of age, and fourteen counselors (one for each high school). The research secretary investigates problems immediately connected with vocational guidance and placement, but has no connection with the department which handles educational tests and measurements. The distinctive features of the department of vocational guidance in Pittsburgh are: [1]

1. The selection and organization of the counselors.
2. The provision made for extra pay for teachers acting as counselors.
3. The conferences of counselors, where duties are carefully outlined and successful methods of work discussed.
4. The high degree of coördination with other administrative departments, particularly tests and measurements, and vocational education divisions.
5. The publication of bulletins, not only of service to the Pittsburgh schools, but also to other communities.

As a result of the coöperation between the research department and the vocational guidance department it has been found possible to introduce ability grouping into the junior and senior high schools of Pittsburgh, with highly gratifying evidences of success.

(*c*) *Boston.*[2] The Vocational Guidance and Placement Bureau of Boston concerns itself with educational and vocational advisement, and with occupational placement. The vocational counselors are elementary- and high-school teachers, appointed to render counseling service in addition to their other duties. Elementary-school pupils receive guidance in the selection of high schools which they will attend, and high-school subjects which they will take up.

[1] Rynearson, Edward. "Guidance in the Pittsburgh Public Schools"; in *Twenty-Third Yearbook*, National Society for the Study of Education, 1924, part II, pp. 92–96.

[2] Ginn, Susan B. "Guidance in Boston"; in *Twenty-Third Yearbook*, National Society for the Study of Education, part II, pp. 62–68.

High-school pupils receive advice regarding high-school curricula and higher institutions where they may wish to continue their education. Counselors also assist pupils in selecting their vocational objectives, and instruct them in the best means of securing the necessary training. Life-career classes are maintained in parts of the city where children are most apt to leave school at the age of fourteen to go to work.

The placement section of the Boston Bureau is for the most part in the hands of full-time workers connected with the central office. These workers are designated: vocational instructors (men), and vocational assistants (women). These full-time workers carry on social case-work, such as the investigation of home conditions, economic need, and other factors which enter into a child's expressed intention to go to work. Firms and industrial establishments employing junior workers are investigated to see that the provisions of the compulsory attendance and child-labor laws are fully complied with. The follow-up work of the bureau is also in the hands of these full-time workers. When a junior worker leaves a position, the employer is required to return that worker's clearance card to the central bureau. From this office the matter is immediately followed up and the young worker re-placed in a suitable employment, or required to attend continuation school for twenty hours per week until reëmployed.

The Boston Bureau of Educational Investigation is entirely separate from the Bureau of Vocational Guidance and Placement. The former, which handles educational measurements and statistics, apparently concerns itself primarily with children under fourteen years of age. The latter devotes its energies mainly to children fourteen to sixteen years of age, and to high-school pupils who are about to go to work. In other words, vocational guidance and

placement are the chief concerns of the Boston Bureau, with educational guidance as a minor interest under the assumption that another department has performed that service.

The relation of these bureaus to the educational and vocational guidance movement. The vocational guidance departments of Boston, Pittsburgh, and Chicago are typical of the earlier phase of the guidance movement, when all of the emphasis was placed on the task of vocational guidance and placement. The main activities of these bureaus are directed toward the solution of the problems presented by fourteen- to sixteen-year-old pupils who want to leave school and go to work. The bureaus are well organized, ably directed, and have large staffs consisting of director, full-time experts, full- and part-time counselors, and clerical assistants. It is the type of organization best suited to a city of 500,000 or over, but even in such cities it would seem that a much closer affiliation with the department of tests and measurements would be to the advantage of all concerned.

The bureaus in Oakland, Pasadena, and Providence are typical of the more recent conception of guidance as being concerned with every one of the essential life-activities — that is home membership, the fundamental subjects, health, recreation, character, vocation, and citizenship. Under the title of "bureaus of research and guidance" they take the lead in the movements for reorganization of subject-matter and methods of teaching; in applying measurement devices designed to explore the interests, abilities, and capacities of children; in plans for securing a better adjustment between the child and the school tasks; in the training of classroom teachers in the use, evaluation, and interpretation of these new educational tools; and in making continuous self-surveys.

The aim of these research and guidance bureaus is to coordinate all of the agencies and activities of the school system in the direction of securing for each child the opportunity, and also the incentive, to attain the maximum development of which he is capable. They thus come to stand in the same relation to the public school system that the research engineer occupies in industry. The cost of maintaining such bureaus is so reasonable as to be within the reach of almost any progressive community. They contribute so much to the general efficiency of the school system that the cost becomes a dividend-paying investment — not cash dividends, but human-value dividends.

It is the conservation of the human values, above referred to, which we have endeavored to set forth as the true objectives of the guidance movement. The vitality, the intelligence, the ambition, the vocational efficiency, the moral stamina of its children are all human values in which a democracy is deeply interested. Whenever a school system makes use of instrumentalities by means of which these essentials of a more abundant life are promoted, the true aims of guidance may be said to have been accomplished.

QUESTIONS AND PROBLEMS

1. What effect would the general adoption of the county-unit plan of school organization have upon the problem of one-room elementary schools and two- and three-teacher high schools? What difference would it make to the guidance movement?
2. In carrying out research projects involving evaluation of character traits, what difficulties are encountered, and what cautions should be observed?
3. Make a job analysis of a counselor's job in a Cosmopolitan-type high school in the residential section of a city such as Detroit, Michigan.
4. Make a job analysis of a counselor's job in an elementary school of 24 rooms, with 900 pupils, in the foreign quarter of a city having 500,000 population. Assume the 8–4 plan of administration.

5. A large city built a modern vocational high school, completely equipped and placed it in the part of the city where the industrial workers lived. Within three years the Board of Education of that city was compelled to change this high school into a Cosmopolitan-type high school. How do you explain this?
6. Would you demand that the person you employed as a full-time counselor in a high school should have had first-hand experience in some vocation other than teaching? Give reasons.
7. Suggest details for a series of "posters" for a "Go-to-High-School" campaign among eighth-grade elementary pupils.
8. Write a sample letter to a parent requesting an interview for the purpose of talking over a certain child's life-career plans.
9. Suggest a workable plan for administering scholarship aid for pupils who would otherwise be unable to continue their education.
10. Should the words "vocational guidance" be made to cover all the aims and functions of the guidance movement as those aims are now coming to be understood?
11. Why is it desirable, aside from the matter of economy, to hold down to a minimum the costs of a central bureau of research and guidance?

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